State: District of Columbia Filing Company: American United Life Insurance Company

TOI/Sub-TOI: H11G Group Health - Disability Income/H11G.004 Other

Product Name: Worksite Disability

Project Name/Number: /

## Filing at a Glance

Company: American United Life Insurance Company

Product Name: Worksite Disability
State: District of Columbia

TOI: H11G Group Health - Disability Income

Sub-TOI: H11G.004 Other

Filing Type: Rate

Date Submitted: 09/02/2015

SERFF Tr Num: AULD-130228195 SERFF Status: Submitted to State

State Tr Num:

State Status:

Co Tr Num: 3802 RATES

Implementation 11/02/2015

Date Requested:

Author(s): Angie Neville, Danita Ragland-Hatton, Cathy Strong

Reviewer(s):

Disposition Date:
Disposition Status:
Implementation Date:

State: District of Columbia Filing Company: American United Life Insurance Company

TOI/Sub-TOI: H11G Group Health - Disability Income/H11G.004 Other

Product Name: Worksite Disability

Project Name/Number: /

#### **General Information**

Project Name: Status of Filing in Domicile: Authorized
Project Number: Date Approved in Domicile: 09/17/2014

Requested Filing Mode: Domicile Status Comments: Indiana is our domiciliary state.

Explanation for Combination/Other: Market Type: Group

Submission Type: New Submission Group Market Size: Small and Large

Group Market Type: Employer Overall Rate Impact:

Filing Status Changed: 09/02/2015

State Status Changed: Deemer Date:

Created By: Angie Neville Submitted By: Angie Neville

Corresponding Filing Tracking Number:

Filing Description:

Rate filing for our Worksite Disability Product, form numbers G 3802 and GC 3802

#### **Company and Contact**

#### **Filing Contact Information**

Cathy Strong, Sr. Contract Analyst Cathy.Strong@OneAmerica.com

One American Square 317-285-1943 [Phone] Indianapolis, IN 46206 317-285-5510 [FAX]

**Filing Company Information** 

American United Life Insurance CoCode: 60895 State of Domicile: Indiana

Company Group Code: 619 Company Type:
One American Square Group Name: State ID Number:

P.O. Box 7127 FEIN Number: 35-0145825

Indianapolis, IN 46206 (877) 285-7660 ext. [Phone]

## **Filing Fees**

Fee Required? No Retaliatory? No

Fee Explanation:

State: District of Columbia Filing Company: American United Life Insurance Company

TOI/Sub-TOI: H11G Group Health - Disability Income/H11G.004 Other

Product Name: Worksite Disability

Project Name/Number: /

#### **Rate Information**

Rate data does NOT apply to filing.

State: District of Columbia Filing Company: American United Life Insurance Company

TOI/Sub-TOI: H11G Group Health - Disability Income/H11G.004 Other

Product Name: Worksite Disability

Project Name/Number: /

#### Rate/Rule Schedule

No.	Schedule Item Status	Document Name	Affected Form Numbers (Separated with commas)	Rate Action	Rate Action Information	Attachments
1		Actuarial manual	G 3802, GC 3802	New		Worksite Disability EducatorPlan_Manual_ 201503.pdf, Worksite Disability LTD_Manual_201503. pdf, Worksite Disability STD_Manual_201503. pdf,

# American United Life Insurance Company Indianapolis, Indiana

#### **Worksite Voluntary**

#### **Group Worksite Educator Plan Rate Calculation**

#### March, 2015

- 1. Start with Base Rates Determine the unadjusted manual rates per \$100 of monthly benefit from the Base Rate Tables. These vary by Benefit Duration and Elimination Period (EP) and include implicit assumptions for plan design, tolerable loss ratio, expenses, commissions, taxes, and profit.
- 2. Adjust rates for actual plan features chosen Multiply the result of Step 1 by the appropriate factors from Tables 1 20.
- **3. Determine the expected premium per employee per month** Multiply the result of Step 2 by the assumption of average monthly benefits purchased per employee.
- **4.** Increase the rates for the medical treatment benefit if included Multiply the result of Step 2 by (1 plus [the appropriate cost in Table 21] divided by [the result of Step 3]).
- **5. Determine new tolerable loss ratio** Modify the tolerable loss ratio implicit in step 1 for actual commissions and premium taxes.
- **6. Adjust rates for new tolerable loss ratio** Multiply the result of step 4 by the tolerable loss ratio implicit in step 1, then divide by the result of step 5.

**Table 1 - Supplemental Benefit** 

None	1.00
10%	1.05
20%	1.09

**Table 2 - Spouse Disability** 

Size of Spouse Disability	Duration of Spouse Disability Benefit		
Benefit	24 months	36 months	
None	1.00	1.00	
\$1,000	1.10	1.12	
\$1,500	1.15	1.18	
\$2,000	1.20	1.24	
\$2,500	1.25	1.30	
\$3,000	1.30	1.36	

Table 3 - Accidental Dismemberment and Loss of Sight

No	1.00
Yes	1.03

**Table 4 - Survivor Benefit** 

<b>Duration of</b>	Survivor Benefit Basis		
Payments	Gross	Net	
None	0.99	0.99	
3 months	1.00	1.00	
12 months	1.03	1.02	
24 months	1.05	1.03	

Table 5 - First Day Hospital – Inpatient Only

Elimination	Benefit Duration			
Period	3&6 month	12 month	>=2 years	
Excluded	1.00	1.00	1.00	
0/3 EP	1.03	1.03	1.02	
3/3 EP	1.04	1.04	1.03	
0/7 EP	1.05	1.05	1.04	
7/7 EP	1.07	1.07	1.05	
14/14 EP	1.10	1.10	1.07	
30/30 EP	1.18	1.18	1.14	

**Table 6 - Portability** 

None	0.95
Included	1.00

**Table 7 - Rate Guarantee** 

Length of	Rating Method		
Guarantee	Composite	Age Band	
1 year	1.00	1.00	
2 years	1.00	1.00	
3 years	1.05	1.00	

Table 8 - Pre-ex Benefit

None	1.00
25%	1 + .01 per month of limited benefit

**Table 9 - Pre-existing Conditions Exclusions** 

3/12	1.03
12/12	1.00
12/12/24	0.96
12/24	0.95

#### **Table 10 - Diagnosis Limitations**

	Limitation			
Diagnosis	6 months	12 months	24 months	No Limitation
Special Conditions	1.00	1.00	1.04	1.09
Mental & Nervous	1.00	1.00	1.02	1.23
Drug & Alcohol	1.00	1.00	1.01	1.04

### Table 11 - Own Occ (for durations greater than 12 months)

12 months	0.98
24 months	1.00

#### **Table 12 - Minimum Benefit**

10%	0.98
15%	0.99

#### **Table 13 - Benefit Maximum**

Monthly Maximum Benefit	Factor
< \$6,000	0.98
>= \$6,000	0.98 + 0.01 for every \$1,000 increment above \$5,000

#### **Table 14 - Offset Arrangement**

Direct Immediate (no ASL Offset)	1.00
Direct Immediate w/ ASL Offset	0.98
6 month Delayed (WC Immediate)	1.07
12 month Delayed (WC Immediate)	1.08

#### **Table 15 - Type of Coverage**

Non-Occ	1.00
24 Hour	1.10

#### Table 16 - Mandatory Rehab

	•
No	1.00
Yes	0.99

#### **Table 17 – Family Care Benefit**

None	1.00
12 Months	1.02

#### **Table 18 – Education Benefit**

None	1.00
\$200	1.02
\$300	1.03
\$400	1.04

**Table 19 - State Adjustment** 

AK 1.00 AL 1.05 AR 1.05 AZ 1.00
AR 1.05 AZ 1.00
AZ 1.00
CA 1.05
CO 1.00
CT 1.00
DC 1.00
DE 1.00
FL 1.05
GA 1.05
HI 1.00
IA 0.95
ID 1.00

0.95
0.95
1.00
1.05
1.10
1.00
1.05
1.00
1.00
0.95
1.00
1.05
1.00

NC	1.05
ND	1.00
NE	0.95
NH	1.00
NJ	1.00
NM	1.00
NV	1.00
NY	0.95
ОН	1.00
OK	1.00
OR	1.00
PA	1.00
PR	1.05

RI	1.00
SC	1.05
SD	1.00
TN	1.05
TX	1.00
UT	1.00
VA	1.00
VI	1.05
VT	1.00
WA	0.95
WI	0.95
WV	1.05
WY	1.00

**Table 20 – Rating Method** 

Age-Banded	1.00
Composite	1.15

**Table 21 – Medical Treatment Benefit** 

<b>Annual Benefit</b>	Per Employee
Maximum	per month cost
\$0	\$0.00
\$100	\$5.00
\$200	\$8.00
\$300	\$10.00
\$400	\$12.00
\$500	\$13.00

#### Table 22 – Premium Tax, Licenses, and Fees

Available upon request. The state premium tax will be changed in accordance with changes states make to their premium tax.

#### **BASE RATE TABLES**

SSFRA Plan - Base Monthly Manual Rates per \$100 Monthly Benefit

Age						EP				
Band	0/3	3/3	0/7	7/7	14/14	30/30	60/60	90/90	180/180	365/365
<30	\$2.88	\$2.63	\$2.56	\$2.42	\$2.00	\$1.17	\$0.64	\$0.28	\$0.18	\$0.16
30-34	\$2.88	\$2.63	\$2.56	\$2.42	\$2.00	\$1.29	\$0.76	\$0.49	\$0.34	\$0.28
35-39	\$2.88	\$2.63	\$2.56	\$2.42	\$2.00	\$1.33	\$0.86	\$0.70	\$0.51	\$0.42
40-44	\$2.88	\$2.63	\$2.56	\$2.42	\$2.00	\$1.50	\$1.10	\$0.96	\$0.72	\$0.62
45-49	\$3.32	\$3.03	\$2.95	\$2.79	\$2.30	\$1.83	\$1.47	\$1.30	\$1.00	\$0.85
50-54	\$3.99	\$3.66	\$3.55	\$3.36	\$2.77	\$2.21	\$1.86	\$1.69	\$1.31	\$1.10
55-59	\$4.51	\$4.13	\$4.02	\$3.80	\$3.14	\$2.51	\$2.06	\$1.90	\$1.51	\$1.26
60 & over	\$4.51	\$4.13	\$4.02	\$3.80	\$3.14	\$2.51	\$2.06	\$1.90	\$1.51	\$1.26

#### 5 Year / SSFRA Plan - Base Monthly Manual Rates per \$100 Monthly Benefit

Age						EP				
Band	0/3	3/3	0/7	7/7	14/14	30/30	60/60	90/90	180/180	365/365
<30	\$2.63	\$2.36	\$2.24	\$2.09	\$1.69	\$0.97	\$0.48	\$0.21	\$0.13	\$0.10
30-34	\$2.63	\$2.36	\$2.24	\$2.09	\$1.69	\$1.05	\$0.55	\$0.35	\$0.22	\$0.17
35-39	\$2.63	\$2.36	\$2.24	\$2.09	\$1.69	\$1.08	\$0.63	\$0.48	\$0.33	\$0.26
40-44	\$2.63	\$2.36	\$2.24	\$2.09	\$1.69	\$1.20	\$0.78	\$0.66	\$0.47	\$0.39
45-49	\$3.04	\$2.72	\$2.59	\$2.40	\$1.95	\$1.45	\$1.06	\$0.91	\$0.68	\$0.55
50-54	\$3.65	\$3.28	\$3.12	\$2.90	\$2.34	\$1.81	\$1.41	\$1.24	\$0.93	\$0.77
55-59	\$4.13	\$3.70	\$3.52	\$3.28	\$2.65	\$2.31	\$1.80	\$1.63	\$1.27	\$1.08
60 & over	\$4.46	\$4.08	\$3.94	\$3.72	\$3.07	\$2.45	\$1.98	\$1.82	\$1.41	\$1.16

#### 3 Year / SSFRA Plan - Base Monthly Manual Rates per \$100 Monthly Benefit

Age						EP				
Band	0/3	3/3	0/7	7/7	14/14	30/30	60/60	90/90	180/180	365/365
<30	\$2.46	\$2.26	\$2.15	\$2.00	\$1.67	\$0.94	\$0.46	\$0.20	\$0.13	\$0.10
30-34	\$2.46	\$2.26	\$2.15	\$2.00	\$1.67	\$1.02	\$0.54	\$0.34	\$0.21	\$0.17
35-39	\$2.46	\$2.26	\$2.15	\$2.00	\$1.67	\$1.04	\$0.61	\$0.47	\$0.32	\$0.25
40-44	\$2.46	\$2.26	\$2.15	\$2.00	\$1.67	\$1.16	\$0.76	\$0.64	\$0.46	\$0.38
45-49	\$2.84	\$2.60	\$2.48	\$2.31	\$1.92	\$1.40	\$1.02	\$0.88	\$0.66	\$0.54
50-54	\$3.41	\$3.14	\$2.98	\$2.78	\$2.31	\$1.75	\$1.36	\$1.21	\$0.90	\$0.75
55-59	\$3.86	\$3.54	\$3.37	\$3.15	\$2.61	\$2.23	\$1.74	\$1.58	\$1.23	\$1.04
60 & over	\$4.16	\$3.89	\$3.77	\$3.57	\$3.02	\$2.36	\$1.91	\$1.76	\$1.36	\$1.12

#### 3 Year to Age 70 Plan - Base Monthly Manual Rates per \$100 Monthly Benefit

Age						EP				
Band	0/3	3/3	0/7	7/7	14/14	30/30	60/60	90/90	180/180	365/365
<30	\$2.46	\$2.26	\$2.14	\$1.98	\$1.65	\$0.86	\$0.40	\$0.17	\$0.11	\$0.08
30-34	\$2.46	\$2.26	\$2.14	\$1.98	\$1.65	\$0.93	\$0.46	\$0.29	\$0.17	\$0.13
35-39	\$2.46	\$2.26	\$2.14	\$1.98	\$1.65	\$0.95	\$0.53	\$0.39	\$0.27	\$0.20
40-44	\$2.46	\$2.26	\$2.14	\$1.98	\$1.65	\$1.05	\$0.65	\$0.54	\$0.37	\$0.30
45-49	\$2.84	\$2.61	\$2.46	\$2.27	\$1.90	\$1.26	\$0.88	\$0.74	\$0.54	\$0.44
50-54	\$3.42	\$3.15	\$2.96	\$2.75	\$2.28	\$1.60	\$1.20	\$1.05	\$0.77	\$0.63
55-59	\$3.87	\$3.55	\$3.35	\$3.11	\$2.58	\$2.14	\$1.63	\$1.47	\$1.13	\$0.96
60 & over	\$4.28	\$4.04	\$3.90	\$3.70	\$3.15	\$2.31	\$1.85	\$1.70	\$1.30	\$1.07

### 2 Year to Age 70 Plan - Base Monthly Manual Rates per \$100 Monthly Benefit

Age						EP				
Band	0/3	3/3	0/7	7/7	14/14	30/30	60/60	90/90	180/180	365/365
<30	\$1.74	\$1.65	\$1.56	\$1.44	\$1.26	\$0.84	N/A	N/A	N/A	N/A
30-34	\$1.74	\$1.65	\$1.56	\$1.44	\$1.26	\$0.84	N/A	N/A	N/A	N/A
35-39	\$1.74	\$1.65	\$1.56	\$1.44	\$1.26	\$0.84	N/A	N/A	N/A	N/A
40-44	\$2.48	\$2.36	\$2.23	\$2.08	\$1.79	\$1.13	N/A	N/A	N/A	N/A
45-49	\$2.48	\$2.36	\$2.23	\$2.08	\$1.79	\$1.13	N/A	N/A	N/A	N/A
50-54	\$3.29	\$3.14	\$2.97	\$2.75	\$2.38	\$1.86	N/A	N/A	N/A	N/A
55-59	\$3.29	\$3.14	\$2.97	\$2.75	\$2.38	\$1.86	N/A	N/A	N/A	N/A
60 & over	\$3.55	\$3.46	\$3.34	\$3.18	\$2.81	\$1.95	N/A	N/A	N/A	N/A

#### 1 Year Plan - Base Monthly Manual Rates per \$100 Monthly Benefit

Age						EP				
Band	0/3	3/3	0/7	7/7	14/14	30/30	60/60	90/90	180/180	365/365
<30	\$1.57	\$1.51	\$1.42	\$1.32	\$1.14	\$0.85	N/A	N/A	N/A	N/A
30-34	\$1.57	\$1.51	\$1.42	\$1.32	\$1.14	\$0.85	N/A	N/A	N/A	N/A
35-39	\$1.57	\$1.51	\$1.42	\$1.32	\$1.14	\$0.85	N/A	N/A	N/A	N/A
40-44	\$2.17	\$2.08	\$1.98	\$1.83	\$1.60	\$1.18	N/A	N/A	N/A	N/A
45-49	\$2.17	\$2.08	\$1.98	\$1.83	\$1.60	\$1.18	N/A	N/A	N/A	N/A
50-54	\$2.85	\$2.73	\$2.61	\$2.41	\$2.10	\$1.55	N/A	N/A	N/A	N/A
55-59	\$2.85	\$2.73	\$2.61	\$2.41	\$2.10	\$1.55	N/A	N/A	N/A	N/A
60 & over	\$3.00	\$2.88	\$2.73	\$2.53	\$2.20	\$1.64	N/A	N/A	N/A	N/A

#### 6 Month Plan - Base Monthly Manual Rates per \$100 Monthly Benefit

Age						EP				
Band	0/3	3/3	0/7	7/7	14/14	30/30	60/60	90/90	180/180	365/365
<30	\$1.69	\$1.62	\$1.53	\$1.43	\$1.24	\$0.91	N/A	N/A	N/A	N/A
30-34	\$1.69	\$1.62	\$1.53	\$1.43	\$1.24	\$0.91	N/A	N/A	N/A	N/A
35-39	\$1.69	\$1.62	\$1.53	\$1.43	\$1.24	\$0.91	N/A	N/A	N/A	N/A
40-44	\$2.29	\$2.21	\$2.08	\$1.93	\$1.69	\$1.25	N/A	N/A	N/A	N/A
45-49	\$2.29	\$2.21	\$2.08	\$1.93	\$1.69	\$1.25	N/A	N/A	N/A	N/A
50-54	\$2.97	\$2.86	\$2.72	\$2.52	\$2.19	\$1.63	N/A	N/A	N/A	N/A
55-59	\$2.97	\$2.86	\$2.72	\$2.52	\$2.19	\$1.63	N/A	N/A	N/A	N/A
60 & over	\$3.12	\$3.01	\$2.85	\$2.63	\$2.29	\$1.69	N/A	N/A	N/A	N/A

### 3 Month Plan - Base Monthly Manual Rates per \$100 Monthly Benefit

Age						EP				
Band	0/3	3/3	0/7	7/7	14/14	30/30	60/60	90/90	180/180	365/365
<30	\$1.36	\$1.31	\$1.24	\$1.15	\$1.01	\$0.75	N/A	N/A	N/A	N/A
30-34	\$1.36	\$1.31	\$1.24	\$1.15	\$1.01	\$0.75	N/A	N/A	N/A	N/A
35-39	\$1.36	\$1.31	\$1.24	\$1.15	\$1.01	\$0.75	N/A	N/A	N/A	N/A
40-44	\$1.84	\$1.76	\$1.67	\$1.55	\$1.35	\$1.01	N/A	N/A	N/A	N/A
45-49	\$1.84	\$1.76	\$1.67	\$1.55	\$1.35	\$1.01	N/A	N/A	N/A	N/A
50-54	\$2.39	\$2.28	\$2.17	\$2.02	\$1.76	\$1.31	N/A	N/A	N/A	N/A
55-59	\$2.39	\$2.28	\$2.17	\$2.02	\$1.76	\$1.31	N/A	N/A	N/A	N/A
60 & over	\$2.51	\$2.40	\$2.29	\$2.11	\$1.85	\$1.37	N/A	N/A	N/A	N/A

#### 65/5/70 Plan - Base Monthly Manual Rates per \$100 Monthly Benefit

Age						EP				
Band	0/3	3/3	0/7	7/7	14/14	30/30	60/60	90/90	180/180	365/365
<30	\$2.88	\$2.63	\$2.56	\$2.42	\$2.00	\$1.17	\$0.64	\$0.28	\$0.18	\$0.16
30-34	\$2.88	\$2.63	\$2.56	\$2.42	\$2.00	\$1.29	\$0.76	\$0.49	\$0.34	\$0.28
35-39	\$2.88	\$2.63	\$2.56	\$2.42	\$2.00	\$1.33	\$0.86	\$0.70	\$0.51	\$0.42
40-44	\$2.88	\$2.63	\$2.56	\$2.42	\$2.00	\$1.50	\$1.10	\$0.96	\$0.72	\$0.62
45-49	\$3.32	\$3.03	\$2.95	\$2.79	\$2.30	\$1.83	\$1.47	\$1.30	\$1.00	\$0.85
50-54	\$3.99	\$3.66	\$3.55	\$3.36	\$2.77	\$2.21	\$1.86	\$1.69	\$1.31	\$1.10
55-59	\$4.51	\$4.13	\$4.02	\$3.80	\$3.14	\$2.51	\$2.06	\$1.90	\$1.51	\$1.26
60 & over	\$6.63	\$6.07	\$5.92	\$5.59	\$4.62	\$3.70	\$3.03	\$2.80	\$2.22	\$1.85

Group Worksite LTD Manual Premium Calculation

#### I. Introduction

The following pages describe the rating process for calculating Group Voluntary Long-Term Disability manual premiums. The major steps in the calculation can be broken down as follows:

	<b>Page</b>
A. Census Calculations	2
<b>B. Determine Gross Monthly Cost</b>	3
C. Determine Social Security Credit	3
D. Determine State Plan Credit	4
E. Calculate Net Monthly Cost	4
F. Plan Design Adjustments	5-12
G. Occupation Factor	13
Occupation Categories	14-16
H. Industry Adjustment	17
I. State/Zipcode Adjustment	17
J. Pers/Strs Adjustment	17
K. Expense Loading and Final Rate Calculation	18
Base Rate Tables	19-27
Social Security Probability Table	28
Notes	28-29
Credibility Formula	30
Experience Rating Formula	31-32

Each of these calculations is described in detail in the sections that follow.

Group Worksite LTD Manual Premium Calculation

#### **II. Rate Calculations**

#### A. Census Calculations

Each census should contain the following fields of information:

- Sex
- Age or Year of Birth (YOB)
- Salary
- Salary Mode Frequency in which salary is paid.
- State/Zip Code
- Occupation Code
- Class

For each life in the census, calculate the following:

- 1. Age If the census was input using YOB, the attained ages are calculated based on the anticipated effective date and an assumption that everyone was born on July 1. Age is defined as age last birthday.
- 2. Monthly Salary Convert actual salary to a monthly equivalent if different.
- 3. Monthly Covered Salary Calculated as the lesser of a. or b.:
  - a. Actual Monthly Salary
  - b. Maximum Monthly Benefit / Benefit Percent
- 4. Monthly Indemnity Monthly Covered Salary X Benefit Percent

From the census data calculate the following statistics:

- 1. Number of Lives
- 2. Total Monthly Payroll
- 3. Total Covered Monthly Payroll
- 4. Total Monthly Indemnity
- 5. Average Monthly Salary
- 6. Average Monthly Indemnity
- 7. % Female Lives
- 8. % Lives aged 50 & over
- 9. % Monthly Indemnity on Female Lives
- 10. % Monthly Indemnity on Lives 50 & over
- 11. % Monthly Indemnity on White Collar lives
- 12. % Monthly Indemnity on Grey Collar lives
- 13. % Monthly Indemnity on Blue Collar Skilled lives
- 14. % Monthly Indemnity on Blue Collar Unskilled lives

Group Worksite LTD Manual Premium Calculation

#### **B.** Determine Gross Monthly Cost

For each life in the census, determine the Plan Base Rate per \$100 of monthly indemnity from the attached Base Rate Tables.

**Gross Monthly Cost** = Plan Base Rate x Monthly Indemnity / 100, summed over all lives covered.

#### C. Determine Social Security Credit

For each life in the census, determine the following values:

- 1. Minimum Benefit based on the plan design.
- 2. Maximum Creditable Offset, defined as 95% of the difference between the gross Monthly Indemnity and the Minimum Benefit.
- 3. Assumed AIME, defined as 85% of the lesser of (a) Monthly Salary, or (b) \$8,900.00
- 4. Primary SS Amount, calculated from the following table:

If A	<u>IME is:                                    </u>	
at least	But not over	then Primary SS Amount is
0.00	749.00	90% of AIME
749.00	4,517.00	32% of AIME, plus \$ 434.42
4,517.00	7,565.00	15% of AIME, plus \$1,202.31

where the Maximum Primary SS Amount = \$2,337.06

Note: The Primary SS Amount was derived based upon 2011 Social Security Administration (SSA) disability payment program in steps 3 and 4 above. The values in these steps, which estimate the offset amount, will be updated annually to remain consistent with the SSA disability payment program.

- 5. Family SS Amount, calculated as (a) 0 if Primary integration, or (b) half of the Primary SS Amount for other integration methods.
- 6. AllSources/Backdoor Margin: For these integration methods, calculate as
  - (a) Monthly Salary times AS/BD %, less
  - (b) gross Monthly Indemnity.
- 7. Primary SS Offset, calculated as the lesser of:
  - (a) the Primary SS Amount (reduced by AS Margin if AllSources integration applies), or
  - (b) the Maximum Creditable Offset.
- 8. Family SS Offset, calculated as the lesser of:
  - (a) the Family SS Amount (reduced by any portion of the AS/BD Margin not already applied against the Primary SS Amount), or
  - (b) the Maximum Creditable Offset less the Primary SS Offset.
- 9. Primary SS Probability & Family SS Probability, found in the attached Social Security Probability Table.
- 10. SS Rate, defined as the base rate per \$100 of monthly indemnity from the attached Base Rate Tables, using the longer of a 180 day elimination period or the actual plan elimination period.

Social Security Credit = SS Rate x ( Primary SS Offset x Primary SS Probability + Family SS Offset x Family SS Probability ) / 100,

summed over all lives covered.

(If the plan design is non-integrated or the employees are not covered by Social Security, the Social Security Credit is zero.)

March 2015 3 WDL

Group Worksite LTD Manual Premium Calculation

#### D. Determine State Plan Credit

If the elimination period for the plan is less than 180 days, and the state appears in the table below, determine the following values for each life in the census:

1. Look up the State Benefit %, State Maximum and State Probability in the table.

<b>State</b>	Benefit %	<u>Maximum</u>	<b>Probability</b>
CA	55%	\$3,974	90%
HI	58%	\$2,119	95%
NJ	66 2/3%	\$2,270	95%
NY	50%	\$ 737	95%
PR	65%	\$ 489	95%
RI	60%	\$2,825	95%

- 2. State Amount, defined as the lesser of:
  - (a) Monthly Salary times State Benefit %, or
  - (b) State Maximum.
- 3. State Offset, calculated as the lesser of:
  - (a) the State Amount (reduced by AS Margin if AllSources integration applies), or
  - (b) the Maximum Creditable Offset.
- 4. State Rate, defined as the Plan Base Rate minus the SS Rate.

**State Plan Credit** = State Rate x State Offset x State Probability / 100, summed over all lives covered.

(If the elimination period is 180 days or longer, or the state does not appear in the table, the State Plan Credit is zero.)

#### E. Calculate Net Monthly Cost

Net Monthly Cost = Gross Monthly Cost - Social Security Credit - State Plan Credit

Group Worksite LTD Manual Premium Calculation

#### F. Plan Design Adjustments

#### F-1: Benefit Percent Adjustment

Benefit Percent	<u>Factor</u>
0.00% to 5.00%	1.00
5.01% to 6.00%	1.02
6.01% to 7.00%	1.04
7.01% to 8.00%	1.06
8.01% to 9.00%	1.08
9.01% to 10.00%	1.10
10.01% to 11.00%	1.12
11.01% to 12.00%	1.14
12.01% to 13.00%	1.16
13.01% to 14.00%	1.18
14.01% to 15.00%	1.20
15.01% to 45.00%	0.80
45.01% to 50.00%	0.85
50.01% to 55.00%	0.90
55.01% to 60.00%	0.97
60.01% to 65.00%	1.02
65.01% to 67.00%	1.07
67.01% to 100.00%	1.20

### F-2a: Contributory Adjustment

Status / Benefit %	Factor
Noncontributory	1.00
Contributory / Section 125 Plan	1.00
Contributory / <=60%	1.05
Contributory / 61% - 66 2/3%	1.10
Contributory / >66 2/3%	1.20

#### F-2b: Participation Adjustment

Status	<u>Factor</u>
Noncontributory	1.00
Contributory	1.00 + [0.60 x (100% - Assumed Participation %)]

#### F-3: Own-Occupation Period Adjustment

Own Occupation Period	<u>Salary</u>	<u>Salary</u>
	<\$50K	>=\$50K
None (Any Occ)	0.92	0.94
1 Year	0.94	0.96
2 Years	1.00	1.00
3 Years	1.05	1.01
5 Years	1.10	1.03
10 Years	1.13	1.04
To Age 65 or BDRO	1.15	1.05

Group Worksite LTD Manual Premium Calculation

#### F-4: Retirement Income Protection Adjustment

The extra benefit for the 401(k) contribution benefit or the annuity contribution benefit is added in the calculations described in Step B.

#### F-5: Case Size Adjustment

No. of Lives	Factor
10-24	0.80
25-49	0.80
50-99	0.83
100-299	0.90
300-499	0.90
500-999	0.90
1000-4999	0.95
5000+	0.95

#### F-6: Partial Definition of Disability Adjustment

Partial Definition	Factor
Total	0.97
Partial (50% or Proportionate Loss)	0.98
Residual (50% or Proportionate Loss)	1.00
Partial 70% method	1.01
Residual 70% method	1.01

#### F-7: WIB Limitation Adjustment

WIB	Factor
None	0.98
3 Months	0.99
6 Months	0.99
12 Months	1.00
24 Months	1.01
Unlimited	1.02

#### F-8: Maximum Benefit Amount Adjustment

Monthly Maximum Benefit	<u>Factor</u>
<= \$5,000	0.95
\$5,001 - \$9,999	1.00 + (0.01*(Max-10,000)/1000)
>= \$10,000	1.00 + (0.01*(Max-10,000)/1000)

#### F-9: Benefit Duration Limitation Adjustment

Limited	Cumulative Option Factor			
Definition*	M&N	D&A	Self Reported	Spec Condition
6 Months	0.93	0.96	0.96	0.92
1 Year	0.93	0.96	0.96	0.92
2 Years	0.95	0.97	0.97	0.96
No Limitation	1.14	1.00	1.00	1.00

<sup>\*</sup> Benefit duration limitations are not allowed in Vermont.

The factor for Per Occurrence Options = 0.02 + the Cumulative Option Factor.

Group Worksite LTD Manual Premium Calculation

#### <u>F-10: Accidental Dismemberment & Loss of Sight Benefit (a.k.a. Minimum Indemnity)</u> <u>Adjustment</u>

Accidental Dismemberment &	Factor
Loss of Sight	
No	1.00
Yes	1.03

#### F-11: COLA Benefit Adjustment

1 Year Wait for First Increase				
	5 Adj.	10 Adj.	T65 Adj.	
COLA Percent	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>	
1%	1.02	1.03	1.04	
2%	1.05	1.06	1.08	
3%	1.07	1.10	1.12	
4%	1.10	1.13	1.16	
5%	1.17	1.21	1.24	
6%	1.25	1.29	1.33	
% CPI or 3%	1.05	1.08	1.10	
	5 Year Wait for	First Increase	1	
	5 Adj.	10 Adj.	T65 Adj.	
COLA Percent	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>	
1%	1.019	1.029	1.039	
2%	1.048	1.057	1.076	
3%	1.066	1.094	1.112	
4%	1.094	1.121	1.147	
5%	1.156	1.192	1.218	
6%	1.230	1.265	1.300	
‰ CPI or 3%	1.041	1.067	1.084	

The factors above apply to the net benefit. If COLA is applied to the gross benefit, adjust the factor as follows: (factor - 1.0)/0.7 + 1.0

Group Worksite LTD Manual Premium Calculation

#### F-12: Pre-Existing Condition Exclusion Adjustment

Pre-Existing	<25	25-99	>= 100
Exclusion Provision	Lives	Lives	Lives
None	N/A	N/A	1.05
5 Day	1.10	1.05	1.02
5 Day Active/ 3/12 Future ee's	1.10	1.05	1.01
30/5	1.10	1.05	1.01
30/30	1.10	1.05	1.01
3/6	1.09	1.01	0.99
3/3/12	1.09	1.01	0.99
3/6/12	1.09	1.01	0.99
3/12	1.08	1.00	0.98
3/12/12	1.09	1.01	0.99
6/6/12	1.07	0.99	0.97
6/12	1.06	0.99	0.97
6/12/12	1.06	0.98	0.96
12/6/12	1.05	0.98	0.96
12/12	1.04	0.97	0.95
12/12/12	1.05	0.98	0.96
6/6/24	1.02	0.96	0.94
6/12/24	1.01	0.95	0.93
6/24	1.00	0.94	0.92
12/6/24	0.99	0.93	0.91
12/12/24	0.99	0.93	0.91
12/24	0.98	0.92	0.90

#### F-13: Supplemental Disability Adjustment

Contributory Status	10% Benefit	20% Benefit
NonContributory	1.04	1.07
Contributory	1.05	1.09
No Coverage 1.00		
Note: The Supplemental Disability Benefit is capped at \$3,000/month.		

### F-14: Takeover Adjustment

First Time Buyer	<u>Factor</u>
Yes	0.97
No	0.97

#### F-15: Rate Guarantee Period Adjustment

Rate Guarantee Period	< 300 Lives	Over 300 Lives
1 Year	1.00	1.00
2 Years	1.00	1.00
3 Years	1.00	1.00

Group Worksite LTD Manual Premium Calculation

#### F-16: Elimination Period Adjustment

Elimination Period	Without State Dis. Offset	With State Dis. Offset
<= 90 Days	0.90	1.00
120 Days	0.94	1.00
150 Days	0.97	1.00
>= 180 Days	1.00	1.00

#### F-17: Plan Package Adjustment

Plan Package Score	<u>Factor</u>
All	0.87

#### F-18: Survivor Benefit Adjustment

Benefit	Gross Standard	Net Standard	Gross Advanced	Net Advanced
<u>Duration</u>	<u>Factor</u>	<u>Factor</u>	Survivor Factor	Survivor Factor
None	0.99	0.99	1.00	1.00
3 Month	1.00	1.00	1.01	1.01
6 Month	1.02	1.01	1.03	1.02
12 Month	1.03	1.02	1.04	1.03
24 Month	1.05	1.03	1.08	1.05

#### F-19: COBRA Benefit Adjustment

<u>Amount</u>	<u>Factor</u>
No	1.00
Yes	1.02

#### F-20: Family Care Benefit Adjustment

Family Care Benefit	12 Month
No	1.00
12 Month Benefit	1.02
24 Month Benefit	1.03

#### F-21: Education Benefit Adjustment

Amount	<u>Factor</u>
None	1.00
Monthly Amount	1.00 + .01 * Monthly Amount / 100

#### **F-22: Conversion Adjustment**

<u>Criteria</u>	<u>Factor</u>
No	1.00
Yes	1.02

Group Worksite LTD Manual Premium Calculation

#### F-23: Social Security Incentive Adjustment

Social Security Incentive	Factor
None or 1 Month	1.00
3 Months	1.04
12 Months	1.14

#### F-24: Individual Reinstatement Adjustment

Individual Reinstatement	<u>Factor</u>
30 Days	1.00
60 Days	1.00
90 Days	1.00

#### F-25: Waiver of Premium Adjustment

Waiver	Factor
From End of EP	1.00
From Disability Begin Date	1.02

#### F-26: Mandatory Rehabilitation Adjustment

Mandatory Rehab	Factor
Yes	0.99
No	1.00

#### F-27: Gainful Definition Adjustment

<u>Definition</u>	Factor
None or 80/60	1.00
80/80	1.02
85% with Extended Own Occ	1.03
60/60	0.98

#### F-28: Spousal Catastrophic Benefit Adjustment

Duration	<u>Factor</u>	
None	1.00	
24 Months	1.00 + .05 * Monthly Amount / 500	
36 Months	1.00 + .06 * Monthly Amount / 500	

Group Worksite LTD Manual Premium Calculation

#### F-29: High Blue Collar Adjustment

In order to qualify for the High Blue Collar Adjustment, the following 10 plan provisions are required:

- 1) Case must be >=40% Blue Collar
- 2) Case must be Non-Contributory or Contributory with 100% minimum participation
- 3) No COLA
- 4) Family Integration
- 5) 90 or 180 Elimination Period
- 6) <= \$6,000 Benefit Maximum
- 7) <= 2 Year Rate Guarantee
- 8) <=SSNRA Duration
- 9) <= \$100 or 10% Minimum Benefit
- 10) WIB <> Unlimited

If the plan meets all of the above criteria, then determine the number of discounted provisions in the Table below.

<u>Criteria</u>	Discounted Provision
Benefit %	<= 50%
M&N/D&A/SC	All <= 2 Yrs
Benefit Duration	<= 2 Yrs/ADL
Pre-ex	12/24 or 12/x/24

#### The High Blue Collar Adjustment:

# of Discounted Provisions	Adjustment Factor
None	1.00
1	0.92
2	0.90
3	0.87
4	0.85

#### F-30: Funding Type Adjustment

Funding Type	Funding Type Factor
Non-Contributory	1.00
Gross Up Plans	1.05
Contributory	1.10

#### F-31: Accumulation of EP Adjustment

Criteria/Benefit	Adjustment Factor
Standard	1.00
Accumulation to 2 times the EP	1.01

#### F-32: Prudent Person Definition in Pre-Existing Condition Exclusion

<u>Criteria</u>	Factor
No	1.00
Yes	1.00

Group Worksite LTD Manual Premium Calculation

#### F-33: ER FICA Adjustment

Criteria	Factor
No	1.00
EP greater than 179 Days	1.00
EP less than 180 Days	1.02

#### F-34: Benefit Type Adjustment

<u>Criteria</u>	<u>Factor</u>
% of Salary	1.00
Flat	1.00
Incremental	0.96

#### F-35: Composite Rate Adjustment with 100% Employee Contribution

Minimum Participation Criteria	Factor
40%	1.15
50%	1.00

#### F-36: Age Band Rate Adjustments

Age Range	SSNRA/RBD	Fixed Duration
0 to 19	0.55	0.55
20 to 29	0.77	0.77
30 to 39	0.93	0.93
40 to 64	1.00	1.00
65 to 69	0.55	1.00
70 and above	0.40	1.00

Multiply F-1 through F-35 to get the Composite Plan Design Adjustment Factor. F-36 adjusts the base rate costs by age band.

Group Worksite LTD Manual Premium Calculation

#### G. Occupation Factor

An Occupation-Weighted monthly indemnity is calculated for each employee using the following tables. Interpolation between the values from the two applicable tables is used. A weighted-average occupation factor is then calculated by dividing the group's total Occupation Factor weighted monthly indemnity by the group's total monthly indemnity.

If the group is covered by worker's compensation, G-1 and G-2 are used.

#### G-1: Occ Factor (Low Bound) with Worker's Compensation

Monthly Indemnity Low Bound	Occ 1 Factor	Occ 2 Factor	Occ 3 Factor	Occ 4 Factor
0	1.40	1.71	2.10	3.00
2704	1.25	1.52	1.88	2.65
3604	1.05	1.28	1.58	2.25
4506	0.95	1.14	1.40	1.98
6758	0.85	1.05	1.31	2.07
9010	0.65	0.80	1.08	2.25

#### G-2: Occ Factor (High Bound) with Worker's Compensation

Monthly Indemnity Low Bound	Occ 1 Factor	Occ 2 Factor	Occ 3 Factor	Occ 4 Factor
0	1.25	1.52	1.88	2.65
2704	1.05	1.28	1.58	2.25
3604	0.95	1.14	1.40	1.98
4506	0.85	1.05	1.31	2.07
6758	0.65	0.80	1.08	2.25
9010	0.65	0.80	1.08	2.25

If the group is not covered by worker's compensation, G-3 and G-4 are used.

#### G-3: Occ Factor (Low Bound) without Worker's Compensation

Monthly Indemnity Low Bound	Occ 1 Factor	Occ 2 Factor	Occ 3 Factor	Occ 4 Factor
0	1.47	1.79	2.31	3.30
2704	1.31	1.60	2.07	2.92
3604	1.10	1.34	1.74	2.48
4506	1.00	1.20	1.54	2.18
6758	0.89	1.10	1.44	2.28
9010	0.68	0.84	1.19	2.48

#### G-4: Occ Factor (High Bound) without Worker's Compensation

Monthly Indemnity Low Bound	Occ 1 Factor	Occ 2 Factor	Occ 3 Factor	Occ 4 Factor
0	1.31	1.60	2.07	2.92
2704	1.10	1.34	1.74	2.48
3604	1.00	1.20	1.54	2.18
4506	0.89	1.10	1.44	2.28
6758	0.68	0.84	1.19	2.48
9010	0.68	0.84	1.19	2.48

Group Worksite LTD Manual Premium Calculation

#### **Group LTD Occupational Categories**

#### 1. White Collar Occupations

Includes persons engaged in upper-level business management and professionals.

Positions generally require a college degree and extensive experience in that business or field. Since these types of occupations generally require a high level of independent thinking and decision making, the potential to retrain or transfer attained skills is high thus enhancing return to work possibilities. In addition, since manual duties are typically not required in these occupations, the potential for incurring physical disabilities exacerbated by job are low. Job duties involve considerable responsibility for decision and policy-making and also may include supervisory responsibilities or knowledge and technical application of high technology:

Engineer, Radio/TV

Account/Portfolio Manager Executive
Accountant or Financial Personnel Financial Analyst

Actuary Funeral Director/Mortician
Administrator Geologist, (Without field duties)

Advertising Agent Insurance Broker
Radio or TV Announcer Interior Decorator

Appraiser or Estimator

Architect

Mail Clerk

Administrative Assistant Manager (In office only)
Artist Office Manager

Artist Office Manager
Attorney Officer

Buyer or Purchasing Agent Paralegal
Bank Teller Pharmacist
Chaplain, Pastor or Minister Photographer

Chaptain, Pastor of Minister

Chemist, (Except Maintenance & Production)

Computer Operator

Photographer

Plant Manager

Programmer

Computer Programmer Psychiatrist or Psychologist

Consultant Receptionist

Bookkeeper Sales (Office Environment)
Controller Scientist

Cashier (Office only)SecretaryData Entry ClerkStock Broker or Bond TraderDepartment HeadSuperintendent, white collar

Designer Supervisor, (White Collar Industry)
Draftsman Teacher/Professor

Editor Technician

Engineer, Chemical Therapist (Physical, Occupational or Vocational)

Engineer, Civil Underwriter
Engineer, Electrical Veterinarian
Engineer, Mechanical Word Processor

Group Worksite LTD Manual Premium Calculation

#### **Group LTD Occupational Categories**

#### 2. Gray Collar

Employees who are engaged in non-hazardous occupations outside of an office environment, and who need specific skills and extensive training to perform their occupation. They have light or limited manual duties. This occupational category reflects some of the potential for transferability of skills present in white collar occupations. However, the manual duties required in these jobs do result in higher incidence of claim and could limit return to work/rehabilitation opportunities.

Assembler (high tech) Machine Repair (Office) Chemist (Maintenance and Production) Physicians/Doctors

Computer Technician Pilot Construction Superintendent Reporter Dispatcher Social Worker

Dental Hygienist/Assistant Supervisor/Foreman (see Occ. Notes)

**Dentists** Surgeon Manager (out of office, ex., Fast Food, Teachers' Aide

Supermarket, Theater Manager) Medical/Lab/Pharmacy Technician

<u>3. Blue Collar - Skilled</u>
Skilled Crafts & Labor: Workers of high level who have a thorough and comprehensive knowledge of the process involved in their work. Duties include physical or manual responsibilities not performed in an office environment and independent judgement and extensive training is required. The physical duties generally required in this class of occupation lends itself to a higher expected incidence of claim than the white or gray collar employees. Transferability of skills and return to work opportunities are limited due to narrow skill sets and generally lower levels of formal education.

Assembler (not high tech) Paramedic/EMT Auto Body Repair Plumber/Pipefitter Cabinet Maker Pressman/Printer Carpenter Production Worker Convenience Store Manager Quality Control Inspector Real Estate Agents

Driver (Short Haul) Electrician Repairman

Engineer, Operating Sales (outside office environment, ex. car) Flight Attendant Service Representative (Manual Duties)

General Contractor Service Station Manager

Installer Supervisor/Foreman (see Occ. Notes)

Machine Repair (Non-office) Surveyor

Machinist Tool Maker/Die Maker

Mechanic Tool Pusher Meter Reader **Typesetter** Nurses (LPN, LVN, LGN, RN) Welder

Group Worksite LTD Manual Premium Calculation

#### **Group LTD Occupational Categories**

#### 4. Blue Collar - Unskilled

These occupations involve hazardous, stressful, or heavy manual duties, sometimes requiring the application of little or no independent judgement. Duties are often elementary and can be learned in a few days or have a high risk of on the job injury. "Service" employees, with extensive exposure to the public, are included in this category of occupations. The requirements of performing mundane or physical duties result in the highest expected incidence of claims of all four occupational categories. In addition, there are little, if any, transferable skills attained in these occupations. This negatively impacts the claim management effort.

Air Traffic Controller

Baker

Barber/Hair Dresser

Bartender Butcher

Cafeteria/Kitchen Worker

Child Care Worker

Cook/Chef

Counter Clerk/Sales/Retail

Dock Worker (Longshoreman, Stevedores)

Driller (except Oil)

Driver (Bus, Long Haul, Taxi, Delivery)

Drywaller

Entertainment Worker (Actor, Musician)

Exterminator Farm/Diary Worker

Fireman Gardener

Gas Station Worker Grocery Clerk

Groundskeeper/Landscaper Heavy Equipment Operator Inventory Clerk (manual duties)

Janitor/Custodian

Laborer

Lineman/Cable Worker

Maintenance Mason/Tile Layer Messenger Mill Worker

Natural Resource Worker (Logger, Fisherman,

Quarryman, Miner) Nurses Aide/Orderly

Oil Driller

Packing/Material Handler

Painter Policeman

Poultry Plant Processor

Residential Real Estate Agent/Broker

Roofer

Sales (outside office environment, ex. Door-to-door)

Security Guard

Shipping & Receiving Clerk

Sport Pro/Coach Steel Worker Stock Clerk Tailor

Waiter/Waitress Warehouseman/Clerk Window Washer

Group Worksite LTD Manual Premium Calculation

#### H. Industry Adjustment (available upon request)

# If group participates in Strs/Pers, add factor in Table J to Industry Adjustment based on state of group.

#### I. State Adjustment (available upon request)

#### J. PERS/STRS Adjustment

State	Abbr.	Pers (91xx)	Strs (82xx)	State	Abbr.	Pers (91xx)	Strs (82xx)
Alabama	AL	0.04	0.04	Montana	MT	0.00	0.00
Alaska	AK	-0.03	-0.03	Nebraska	NE	0.04	0.01
Arizona	AZ	0.00	0.00	Nevada	NV	-0.01	-0.02
Arkansas	AR	0.04	0.05	New Hampshire	NH	0.00	0.00
California	CA	0.05	0.01	New Jersey	NJ	-0.02	-0.02
Colorado	CO	-0.04	-0.05	New Mexico	NM	-0.02	0.03
Connecticut	CT	0.01	-0.01	New York	NY	0.01	0.02
Delaware	DE	-0.02	-0.02	North Carolina	NC	-0.04	-0.03
Dist.Columbia	DC	0.01	0.03	North Dakota	ND	-0.01	0.00
Florida	FL	0.01	0.03	Ohio	OH	-0.03	-0.03
Georgia	GA	0.03	0.04	Oklahoma	OK	0.00	0.00
Guam	GU	0.05	0.05	Oregon	OR	-0.05	-0.05
Hawaii	HI	0.02	0.05	Pennsylvania	PA	-0.03	-0.02
Idaho	ID	0.00	0.01	Puerto Rico	PR	0.05	0.05
Illinois	IL	-0.05	-0.04	Rhode Island	RI	-0.04	-0.03
Indiana	IN	0.05	0.05	South Carolina	SC	0.00	-0.01
Iowa	IA	0.05	0.05	South Dakota	SD	-0.05	-0.05
Kansas	KS	0.03	0.02	Tennessee	TN	-0.01	-0.01
Kentucky	KY	0.00	-0.01	Texas	TX	0.05	0.00
Louisiana	LA	0.05	0.00	Utah	UT	0.01	0.00
Maine	ME	-0.05	-0.05	Vermont	VT	-0.03	-0.04
Maryland	MD	-0.05	-0.05	Virginia	VA	0.01	0.03
Massachusetts	MA	0.00	0.04	Virgin Islands	VI	0.05	0.05
Michigan	MI	0.03	0.05	Washington	WA	-0.01	0.02
Minnesota	MN	0.04	0.02	West Virginia	WV	-0.02	0.00
Missouri	MO	0.00	-0.04	Wisconsin	WI	-0.04	-0.04
Mississippi	MS	0.00	0.00	Wyoming	WY	0.03	0.01

Note: This table serves as the starting point for adjusting industry factors for schools and municipalities by state. If additional information is provided on a group that would allow a more accurate valuation of the applicable state offset program than shown in this table, this data should be forwarded to the home office to determine an appropriate adjustment.

Group Worksite LTD Manual Premium Calculation

#### K. Expense Loading and Final Rate Calculation

1. The PreExpense Monthly Cost can now be computed from the following formula:

	<b>Pre-Expense Monthly Cost by age band</b>	(K.1)
X	State/Zip Adjustment Factor	<u>(I)</u>
X	Industry Adjustment Factor	(H+J)
X	Group Occupation Adjustment Factor	(G)
X	Composite Plan Design Adjustment Factor	(F)
	Net Monthly Costby age band*	(E)

Composite Pre-Expense Monthly Cost = sum of the PreExpense Monthly Cost by age band

- 2. Look up the value of fixed expenses and variable percent of premium expenses and profit from the expense table, based on the composite Pre-Expense Monthly Cost. The expense table is available upon request.
- 3. Add the fixed expense to the Pre-Expense Monthly Cost for the group and multiply this sum by the variable expense to determine the Preliminary Monthly Premium for the group.
- 4. Divide the Preliminary Monthly Premium by the Total Monthly Covered Payroll and round the result to two decimal places to obtain the Final Monthly Rate per \$100 of Monthly Covered Payroll.
- 5. Multiply the Final Monthly Rates per \$100 of Monthly Covered Payroll by the Total Monthly Covered Payroll to determine the Final Monthly Premium.
- 6. Calculate the Tolerable Loss Ratio by dividing the Pre-Expense Monthly Cost for the group by the Final Monthly Cost for the group.
- 7. Determine the Final Monthly Rates by age band by dividing the Pre-Expense Monthly Cost for each age band by the Tolerable Loss Ratio.

<sup>\*</sup> For age bands without exposure for the group, the net monthly cost for that age band is estimated based on the base rate, male/female mix of the group, and all other factors applicable to the group.

Benefit			]	Plan Base I	Rate per \$1	00 Monthly	y Indemnit	y		
Duration	Sex	Age	30 EP	60 EP	90 EP	120 EP	150 EP	180 EP	270 EP	360 EP
T70	Male	< 25	0.513	0.324	0.228	0.209	0.194	0.179	0.146	0.113
T70	Male	25 - 29	0.555	0.385	0.288	0.259	0.239	0.218	0.180	0.144
T70	Male	30 - 34	0.696	0.544	0.418	0.382	0.356	0.329	0.284	0.240
T70	Male	35 - 39	0.954	0.801	0.634	0.581	0.543	0.502	0.441	0.380
T70	Male	40 - 44	1.454	1.209	0.980	0.903	0.845	0.787	0.700	0.613
T70	Male	45 - 49	2.342	2.002	1.630	1.508	1.418	1.326	1.176	1.025
T70	Male	50 - 54	3.708	3.138	2.562	2.374	2.239	2.097	1.824	1.553
T70	Male	55 - 59	5.425	4.492	3.611	3.263	3.006	2.746	2.338	1.931
T70	Male	60 & up	7.097	5.629	4.479	4.079	3.778	3.479	2.807	2.135
T70	Female	< 25	1.301	0.539	0.302	0.262	0.234	0.207	0.186	0.167
T70	Female	25 - 29	1.716	0.784	0.474	0.405	0.356	0.304	0.274	0.244
T70	Female	30 - 34	2.030	1.021	0.720	0.625	0.556	0.485	0.437	0.392
T70	Female	35 - 39	2.160	1.408	1.040	0.919	0.828	0.738	0.664	0.590
T70	Female	40 - 44	2.547	1.862	1.435	1.289	1.179	1.067	0.966	0.867
T70	Female	45 - 49	3.201	2.483	1.926	1.749	1.615	1.480	1.329	1.179
T70	Female	50 - 54	3.872	3.181	2.553	2.313	2.138	1.958	1.769	1.580
T70	Female	55 - 59	4.762	3.862	3.151	2.853	2.621	2.399	2.172	1.945
T70	Female	60 & up	5.693	4.756	3.774	3.538	3.362	3.186	2.689	2.193
Benefit			]	Plan Base I	Rate per \$1	00 Monthly	y Indemnit	y		
<b>Duration</b>	Sex	Age	30 EP	<u>60 EP</u>	90 EP	120 EP	150 EP	180 EP	270 EP	360 EP
65 / 5 / 70	Male	< 25	0.509	0.322	0.226	0.207	0.192	0.177	0.146	0.113
65 / 5 / 70	Male	25 - 29	0.550	0.382	0.284	0.257	0.237	0.216	0.178	0.142
65 / 5 / 70	Male	30 - 34	0.685	0.535	0.410	0.376	0.350	0.324	0.281	0.237
65 / 5 / 70	Male	35 - 39	0.931	0.781	0.617	0.566	0.528	0.490	0.430	0.371
65 / 5 / 70	Male	40 - 44	1.393	1.158	0.939	0.865	0.809	0.754	0.671	0.588
65 / 5 / 70	Male	45 - 49	2.176	1.859	1.515	1.401	1.318	1.232	1.094	0.953
65 / 5 / 70	Male	50 - 54	3.247	2.748	2.244	2.079	1.957	1.832	1.594	1.356
65 / 5 / 70	Male	55 - 59	4.192	3.471	2.790	2.554	2.378	2.201	1.874	1.547
65 / 5 / 70	Male	60 & up	6.174	4.757	3.746	3.418	3.172	2.925	2.384	1.844
65 / 5 / 70	Female	< 25	1.288	0.534	0.298	0.260	0.232	0.205	0.185	0.165
65 / 5 / 70	Female	25 - 29	1.693	0.773	0.467	0.400	0.350	0.301	0.270	0.240
65 / 5 / 70	Female	30 - 34	1.986	0.999	0.704	0.612	0.544	0.474	0.428	0.383
65 / 5 / 70	Female	35 - 39	2.090	1.361	1.005	0.888	0.801	0.715	0.643	0.571
65 / 5 / 70	Female	40 - 44	2.412	1.763	1.359	1.220	1.116	1.012	0.915	0.820
65 / 5 / 70	Female	45 - 49	2.931	2.274	1.764	1.601	1.478	1.355	1.218	1.080
65 / 5 / 70	Female	50 - 54	3.326	2.732	2.193	1.987	1.833	1.679	1.517	1.355
65 / 5 / 70	Female	55 - 59	3.614	2.930	2.391	2.191	2.041	1.891	1.713	1.535
65 / 5 / 70	Female	60 & up	4.991	3.952	3.080	2.894	2.756	2.616	2.236	1.856

Benefit			]	Plan Base I	Rate per \$1	00 Monthl	y Indemnit	y		
Duration	Sex	Age	30 EP	60 EP	90 EP	120 EP	150 EP	180 EP	270 EP	360 EP
SSNRA	Male	< 25	0.511	0.323	0.227	0.208	0.193	0.178	0.146	0.113
SSNRA	Male	25 - 29	0.553	0.383	0.286	0.258	0.238	0.217	0.179	0.143
SSNRA	Male	30 - 34	0.690	0.539	0.414	0.379	0.353	0.327	0.283	0.239
SSNRA	Male	35 - 39	0.942	0.791	0.626	0.573	0.536	0.496	0.436	0.375
SSNRA	Male	40 - 44	1.424	1.184	0.959	0.884	0.827	0.770	0.686	0.600
SSNRA	Male	45 - 49	2.259	1.931	1.572	1.454	1.368	1.279	1.135	0.989
SSNRA	Male	50 - 54	3.478	2.943	2.403	2.227	2.098	1.965	1.709	1.454
SSNRA	Male	55 - 59	4.809	3.982	3.200	2.909	2.692	2.473	2.106	1.739
SSNRA	Male	60 & up	4.809	3.982	3.200	2.909	2.692	2.473	2.106	1.739
SSNRA	Female	< 25	1.294	0.536	0.300	0.261	0.233	0.206	0.185	0.166
SSNRA	Female	25 - 29	1.705	0.779	0.471	0.402	0.353	0.302	0.272	0.242
SSNRA	Female	30 - 34	2.008	1.010	0.712	0.618	0.550	0.480	0.433	0.387
SSNRA	Female	35 - 39	2.125	1.384	1.022	0.904	0.815	0.726	0.653	0.581
SSNRA	Female	40 - 44	2.480	1.813	1.397	1.255	1.148	1.040	0.941	0.843
SSNRA	Female	45 - 49	3.066	2.379	1.845	1.675	1.546	1.418	1.274	1.130
SSNRA	Female	50 - 54	3.599	2.957	2.373	2.150	1.985	1.818	1.643	1.468
SSNRA	Female	55 - 59	4.188	3.396	2.771	2.522	2.331	2.145	1.942	1.740
SSNRA	Female	60 & up	4.188	3.396	2.771	2.522	2.331	2.145	1.942	1.740
		I								
Benefit			]	Plan Base I	Rate per \$1	00 Monthl	y Indemnit	y		
<b>Duration</b>	Sex	Age	30 EP	60 EP	90 EP	120 EP	150 EP	180 EP	270 EP	360 EP
RBD/ADEA 1	Male	< 25	0.509	0.322	0.226	0.207	0.192	0.177	0.146	0.113
RBD/ADEA 1	Male	25 - 29	0.550	0.382	0.284	0.257	0.237	0.216	0.178	0.142
RBD/ADEA 1	Male	30 - 34	0.685	0.535	0.410	0.376	0.350	0.324	0.281	0.237
RBD/ADEA 1	Male	35 - 39	0.931	0.781	0.617	0.566	0.528	0.490	0.430	0.371
RBD/ADEA 1	Male	40 - 44	1.393	1.158	0.939	0.865	0.809	0.754	0.671	0.588
RBD/ADEA 1	Male	45 - 49	2.176	1.859	1.515	1.401	1.318	1.232	1.094	0.953
RBD/ADEA 1	Male	50 - 54	3.247	2.748	2.244	2.079	1.957	1.832	1.594	1.356
RBD/ADEA 1	Male	55 - 59	4.192	3.471	2.790	2.554	2.378	2.201	1.874	1.547
RBD/ADEA 1	Male	60 & up	4.192	3.471	2.790	2.554	2.378	2.201	1.874	1.547
RBD/ADEA 1	Female	< 25	1.288	0.534	0.298	0.260	0.232	0.205	0.185	0.165
RBD/ADEA 1	Female	25 - 29	1.693	0.773	0.467	0.400	0.350	0.301	0.270	0.240
RBD/ADEA 1	Female	30 - 34	1.986	0.999	0.704	0.612	0.544	0.474	0.428	0.383
RBD/ADEA 1		35 - 39	2.090	1.361	1.005	0.888	0.801	0.715	0.643	0.571
RBD/ADEA 1		40 - 44	2.412	1.763	1.359	1.220	1.116	1.012	0.915	0.820
RBD/ADEA 1		45 - 49	2.931	2.274	1.764	1.601	1.478	1.355	1.218	1.080
RBD/ADEA 1	Female	50 - 54	3.326	2.732	2.193	1.987	1.833	1.679	1.517	1.355
		55 - 59	3.614	2.930	2.391	2.191	2.041	1.891	1.713	1.535
RBD/ADEA 1	гешате	33 - 39	3.014	2.750	2.331	2.171	2.0-1	1.071	1./13	1.555
RBD/ADEA 1 RBD/ADEA 1		60 & up	3.614	2.930	2.391	2.191	2.041	1.891	1.713	1.535

Benefit			]	Plan Base I	Rate per \$1	00 Monthly	y Indemnit	y		
<b>Duration</b>	Sex	Age	30 EP	<u>60 EP</u>	90 EP	120 EP	150 EP	180 EP	270 EP	360 EP
T65	Male	< 25	0.509	0.322	0.226	0.207	0.192	0.177	0.146	0.113
T65	Male	25 - 29	0.550	0.382	0.284	0.257	0.237	0.216	0.178	0.142
T65	Male	30 - 34	0.685	0.535	0.410	0.376	0.350	0.324	0.281	0.237
T65	Male	35 - 39	0.931	0.781	0.617	0.566	0.528	0.490	0.430	0.371
T65	Male	40 - 44	1.393	1.158	0.939	0.865	0.809	0.754	0.671	0.588
T65	Male	45 - 49	2.176	1.859	1.515	1.401	1.318	1.232	1.094	0.953
T65	Male	50 - 54	3.247	2.748	2.244	2.079	1.957	1.832	1.594	1.356
T65	Male	55 - 59	4.192	3.471	2.790	2.554	2.378	2.201	1.874	1.547
T65	Male	60 & up	3.599	2.981	2.396	2.151	1.967	1.784	1.361	0.937
T65	Female	< 25	1.288	0.534	0.298	0.260	0.232	0.205	0.185	0.165
T65	Female	25 - 29	1.693	0.773	0.467	0.400	0.350	0.301	0.270	0.240
T65	Female	30 - 34	1.986	0.999	0.704	0.612	0.544	0.474	0.428	0.383
T65	Female	35 - 39	2.090	1.361	1.005	0.888	0.801	0.715	0.643	0.571
T65	Female	40 - 44	2.412	1.763	1.359	1.220	1.116	1.012	0.915	0.820
T65	Female	45 - 49	2.931	2.274	1.764	1.601	1.478	1.355	1.218	1.080
T65	Female	50 - 54	3.326	2.732	2.193	1.987	1.833	1.679	1.517	1.355
T65	Female	55 - 59	3.614	2.930	2.391	2.191	2.041	1.891	1.713	1.535
T65	Female	60 & up	2.960	2.399	1.958	1.806	1.690	1.576	1.251	0.925

Benefit				Plan Base	Rate per S	100 Month	ly Indemn	ity		
Duration	Sex	Age	30 EP	60 EP	90 EP	120 EP	150 EP	180 EP	270 EP	360 EP
10 Yr	Male	< 25	0.437	0.268	0.186	0.168	0.155	0.140	0.114	0.087
10 Yr	Male	25 - 29	0.464	0.313	0.230	0.206	0.188	0.170	0.139	0.108
10 Yr	Male	30 - 34	0.571	0.431	0.327	0.297	0.275	0.252	0.215	0.178
10 Yr	Male	35 - 39	0.772	0.627	0.489	0.446	0.412	0.380	0.331	0.283
10 Yr	Male	40 - 44	1.164	0.939	0.751	0.688	0.641	0.594	0.527	0.458
10 Yr	Male	45 - 49	1.869	1.557	1.256	1.159	1.088	1.016	0.901	0.786
10 Yr	Male	50 - 54	3.009	2.513	2.042	1.895	1.784	1.674	1.463	1.255
10 Yr	Male	55 - 59	4.654	3.878	3.135	2.889	2.705	2.520	2.185	1.849
10 Yr	Male	60 & up	7.097	5.629	4.479	4.079	3.778	3.479	2.807	2.135
10 Yr	Female	< 25	1.103	0.428	0.229	0.197	0.174	0.150	0.133	0.116
10 Yr	Female	25 - 29	1.432	0.606	0.354	0.300	0.259	0.220	0.194	0.169
10 Yr	Female	30 - 34	1.655	0.767	0.527	0.455	0.399	0.344	0.307	0.270
10 Yr	Female	35 - 39	1.728	1.045	0.753	0.661	0.590	0.522	0.465	0.410
10 Yr	Female	40 - 44	1.995	1.373	1.038	0.926	0.843	0.759	0.684	0.609
10 Yr	Female	45 - 49	2.481	1.850	1.417	1.282	1.180	1.080	0.970	0.861
10 Yr	Female	50 - 54	3.073	2.470	1.969	1.787	1.649	1.512	1.376	1.239
10 Yr	Female	55 - 59	4.060	3.321	2.727	2.517	2.361	2.204	2.039	1.876
10 Yr	Female	60 & up	5.693	4.756	3.774	3.538	3.362	3.186	2.689	2.193
Benefit				Plan Base	Rate per S	100 Month	nly Indemn	ity		
<b>Duration</b>	<u>Sex</u>	<u>Age</u>	<u> 30 EP</u>	<u>60 EP</u>	<u>90 EP</u>	<u>120 EP</u>	<u>150 EP</u>	<u>180 EP</u>	<u>270 EP</u>	<u>360 EP</u>
10 Yr / RBD	Male	< 25	0.437	0.268	0.186	0.168	0.155	0.140	0.114	0.087
10 Yr / RBD	Male	25 - 29	0.464	0.313	0.230	0.206	0.188	0.170	0.139	0.108
10 Yr / RBD	Male	30 - 34	0.571	0.431	0.327	0.297	0.275	0.252	0.215	0.178
10 Yr / RBD	Male	35 - 39	0.772	0.627	0.489	0.446	0.412	0.380	0.331	0.283
10 Yr / RBD	Male	40 - 44	1.164	0.939	0.751	0.688	0.641	0.594	0.527	0.458
10  Yr / RBD	Male	45 - 49	1.869	1.557	1.256	1.159	1.088	1.016	0.901	0.786
10 Yr / RBD	Male	50 - 54	3.009	2.513	2.042	1.895	1.784	1.674	1.463	1.255
10 Yr / RBD	Male	55 - 59	4.192	3.471	2.790	2.554	2.378	2.201	1.874	1.547
10 Yr / RBD	Male	60 & up	4.192	3.471	2.790	2.554	2.378	2.201	1.874	1.547
10 Yr / RBD	Female	< 25	1.103	0.428	0.229	0.197	0.174	0.150	0.133	0.116
10 Yr / RBD	Female	25 - 29	1.432	0.606	0.354	0.300	0.259	0.220	0.194	0.169
10 Yr / RBD	Female	30 - 34	1.655	0.767	0.527	0.455	0.399	0.344	0.307	0.270
10 Yr / RBD	Female	35 - 39	1.728	1.045	0.753	0.661	0.590	0.522	0.465	0.410
10 Yr / RBD	Female	40 - 44	1.995	1.373	1.038	0.926	0.843	0.759	0.684	0.609
10 11 / KBD				4 0 7 0	4 445	1 202	1 100	1.000	0.070	0.061
10 Yr / RBD	Female	45 - 49	2.481	1.850	1.417	1.282	1.180	1.080	0.970	0.861
	Female Female	45 - 49 50 - 54	2.481 3.073	1.850 2.470	1.417	1.282	1.180	1.080	1.376	1.239
10 Yr / RBD										
10 Yr / RBD 10 Yr / RBD	Female	50 - 54	3.073	2.470	1.969	1.787	1.649	1.512	1.376	1.239

Duration   Sex   Age   30 RP   60 EP   90 EP   120 EP   150 EP   150 EP   270 EP   360 EP   5 Yr   Male   < 25 - 9   0.399   0.259   0.188   0.167   0.140   0.127   0.114   0.091   0.068   0.082   0.188   0.167   0.150   0.134   0.108   0.082   0.177   0.146   0.150   0.134   0.108   0.082   0.177   0.146   0.150   0.134   0.108   0.082   0.177   0.146   0.150   0.134   0.108   0.082   0.177   0.146   0.150   0.134   0.108   0.082   0.177   0.146   0.150   0.154   0.108   0.082   0.171   0.172   0.162   0.152	Benefit	Plan Base Rate per \$100 Monthly Indemnity									
S Yr         Male         < 25		Sex	Age			_			ĭ	270 EP	360 EP
5 Yr         Male         25 - 29         0.399         0.259         0.188         0.167         0.150         0.134         0.108         0.082           5 Yr         Male         30 - 34         0.477         0.347         0.258         0.231         0.212         0.192         0.162         0.132           5 Yr         Male         40 - 44         0.925         0.709         0.554         0.503         0.465         0.427         0.374         0.321           5 Yr         Male         45 - 49         1.445         1.146         0.904         0.828         0.771         0.715         0.627         0.542           5 Yr         Male         50 - 54         2.282         1.817         1.444         1.331         1.247         1.164         1.012         0.859           5 Yr         Male         60 % up         6.174         4.757         3.746         3.418         3.172         2.925         2.384         1.841           5 Yr         Female         25 - 1002         0.339         0.185         0.157         0.136         0.115         0.105         0.000         0.359         0.157         0.136         0.115         0.105         0.11         0.001         <											
5 Yr         Male         30 - 34         0.477         0.347         0.258         0.231         0.212         0.192         0.162         0.132           5 Yr         Male         35 - 39         0.630         0.488         0.373         0.336         0.308         0.281         0.241         0.203           5 Yr         Male         40 - 44         0.925         0.709         0.554         0.503         0.465         0.427         0.374         0.321           5 Yr         Male         55 - 49         1.445         1.146         0.904         0.828         0.771         0.715         0.627         0.542           5 Yr         Male         55 - 59         3.454         2.761         2.190         2.011         1.877         1.744         1.506         1.266         5 Yr         Male         55 - 59         3.454         2.761         2.190         2.011         1.877         1.744         1.506         1.266         5 Yr         Male         55 - 59         3.454         2.761         2.190         2.011         1.877         1.744         1.506         0.210         0.020         0.225         2.384         1.844         1.373         0.486         0.271         0.231											
5 Yr         Male         35 - 39         0.630         0.488         0.373         0.336         0.308         0.281         0.241         0.203           5 Yr         Male         40 - 44         0.925         0.709         0.554         0.503         0.465         0.427         0.374         0.321           5 Yr         Male         45 - 49         1.445         1.146         0.904         0.828         0.771         0.715         0.627         0.542           5 Yr         Male         50 - 54         2.282         1.817         1.444         1.331         1.247         1.164         1.012         0.859           5 Yr         Male         60 % up         6.174         4.757         3.746         3.418         3.172         2.925         2.384         1.844           5 Yr         Female         2.25         1.002         0.359         0.185         0.157         0.136         0.115         0.100         0.086           5 Yr         Female         3.0 34         1.421         0.601         0.401         0.340         0.296         0.250         0.220         0.189           5 Yr         Female         40 - 44         1.600         1.010         0.											
5 Yr         Male         40 - 44         0.925         0.709         0.554         0.503         0.465         0.427         0.374         0.321           5 Yr         Male         45 - 49         1.445         1.146         0.904         0.828         0.771         0.715         0.627         0.542           5 Yr         Male         50 - 54         2.282         1.817         1.444         1.331         1.247         1.164         1.012         0.889           5 Yr         Male         60 & up         6.174         4.757         3.746         3.418         3.172         2.925         2.384         1.844           5 Yr         Female         25         1.002         0.359         0.185         0.157         0.136         0.115         0.100         0.086           5 Yr         Female         25 - 29         1.273         0.496         0.277         0.231         0.197         0.164         0.143         0.121           5 Yr         Female         35 - 39         1.440         0.795         0.554         0.480         0.424         0.370         0.324         0.280           5 Yr         Female         45 - 49         1.910         1.324         0											
5 Yr         Male         45 - 49         1.445         1.146         0.904         0.828         0.771         0.715         0.627         0.542           5 Yr         Male         50 - 54         2.282         1.817         1.444         1.331         1.247         1.164         1.012         0.859           5 Yr         Male         60 & up         6.174         4.757         3.746         3.418         3.172         2.925         2.384         1.844           5 Yr         Female         60 & up         6.174         4.757         3.746         3.418         3.172         2.925         2.384         1.844           5 Yr         Female         2.5         1.002         0.359         0.185         0.157         0.136         0.115         0.100         0.086           5 Yr         Female         2.5         2.9         1.273         0.496         0.277         0.231         0.197         0.164         0.141           5 Yr         Female         35 - 39         1.440         0.795         0.554         0.480         0.424         0.370         0.324         0.280           5 Yr         Female         45 - 49         1.910         1.324         0.98			40 - 44								
5 Yr         Male         50 - 54         2.282         1.817         1.444         1.331         1.247         1.164         1.012         0.859           5 Yr         Male         55 - 59         3.454         2.761         2.190         2.011         1.877         1.744         1.506         1.266           5 Yr         Male         60 & up         6.174         4.757         3.746         3.418         3.172         2.925         2.384         1.844           5 Yr         Female         2.5 - 29         1.273         0.496         0.277         0.231         0.197         0.164         0.143         0.121           5 Yr         Female         35 - 39         1.440         0.0795         0.554         0.480         0.424         0.370         0.324         0.280           5 Yr         Female         45 - 49         1.910         1.324         0.986         0.885         0.809         0.733         0.653         0.572           5 Yr         Female         45 - 49         1.910         1.324         0.986         0.885         0.809         0.733         0.653         0.572           5 Yr         Female         55 - 59         2.997         2.300			45 - 49								
5 Yr         Male         55 - 59         3.454         2.761         2.190         2.011         1.877         1.744         1.506         1.266           5 Yr         Male         60 & up         6.174         4.757         3.746         3.418         3.172         2.925         2.384         1.844           5 Yr         Female         2.5         1.002         0.359         0.185         0.157         0.136         0.115         0.100         0.086           5 Yr         Female         25 - 29         1.273         0.496         0.277         0.231         0.197         0.164         0.143         0.121           5 Yr         Female         35 - 39         1.440         0.795         0.554         0.480         0.424         0.370         0.324         0.280           5 Yr         Female         45 - 49         1.910         1.324         0.986         0.885         0.809         0.733         0.653         0.572           5 Yr         Female         50 - 54         2.311         1.738         1.348         1.215         1.115         1.015         0.915         0.817           5 Yr         Female         50 - 54         2.311         1.738			50 - 54			1.444			1.164		0.859
5 Yr         Male         60 & up         6.174         4.757         3.746         3.418         3.172         2.925         2.384         1.844           5 Yr         Female         2.5         1.002         0.359         0.185         0.157         0.136         0.115         0.100         0.086           5 Yr         Female         25 - 29         1.273         0.496         0.277         0.231         0.197         0.164         0.143         0.121           5 Yr         Female         35 - 39         1.440         0.601         0.401         0.340         0.296         0.250         0.220         0.189           5 Yr         Female         40 - 44         1.600         1.010         0.741         0.654         0.590         0.525         0.467         0.410           5 Yr         Female         45 - 49         1.910         1.324         0.986         0.885         0.809         0.733         0.653         0.572           5 Yr         Female         50 - 54         2.311         1.738         1.348         1.215         1.115         1.015         0.915         0.817           5 Yr         Female         55 - 59         2.997         2.300											
5 Yr         Female         < 25         1.002         0.359         0.185         0.157         0.136         0.115         0.100         0.086           5 Yr         Female         25 - 29         1.273         0.496         0.277         0.231         0.197         0.164         0.143         0.121           5 Yr         Female         35 - 39         1.440         0.795         0.554         0.480         0.424         0.370         0.324         0.280           5 Yr         Female         40 - 44         1.600         1.010         0.741         0.654         0.590         0.525         0.467         0.410           5 Yr         Female         45 - 49         1.910         1.324         0.986         0.885         0.809         0.733         0.653         0.572           5 Yr         Female         55 - 59         2.997         2.300         1.839         1.692         1.581         1.470         1.353         1.234           5 Yr         Female         55 - 59         2.997         2.300         1.839         1.692         1.581         1.470         1.353         1.234           5 Yr         Female         50 - 54         2.231         1.738											
5 Yr         Female         25 - 29         1.273         0.496         0.277         0.231         0.197         0.164         0.143         0.121           5 Yr         Female         30 - 34         1.421         0.601         0.401         0.340         0.296         0.250         0.220         0.189           5 Yr         Female         35 - 39         1.440         0.795         0.554         0.480         0.424         0.370         0.324         0.280           5 Yr         Female         45 - 49         1.910         1.324         0.986         0.885         0.809         0.733         0.653         0.572           5 Yr         Female         50 - 54         2.311         1.738         1.348         1.215         1.115         1.015         0.915         0.817           5 Yr         Female         55 - 59         2.997         2.300         1.839         1.692         1.581         1.470         1.353         1.234           5 Yr         Female         60 & up         4.991         3.952         3.080         2.894         2.756         2.616         2.236         1.856           Plan Base Rate per \$100 Monthly Indemuty           Duration			•								
5 Yr         Female         30 - 34         1.421         0.601         0.401         0.340         0.296         0.250         0.220         0.189           5 Yr         Female         35 - 39         1.440         0.795         0.554         0.480         0.424         0.370         0.324         0.280           5 Yr         Female         40 - 44         1.600         1.010         0.741         0.654         0.590         0.525         0.467         0.410           5 Yr         Female         50 - 54         2.311         1.738         1.348         1.215         1.115         1.015         0.915         0.817           5 Yr         Female         55 - 59         2.997         2.300         1.839         1.692         1.581         1.470         1.353         1.234           5 Yr         Female         60 & up         4.991         3.952         3.080         2.894         2.756         2.616         2.236         1.856           Plan Base Rate per \$100 Monthly Indemnity           Duration         Sex         Age         30 EP         60 EP         90 EP         120 EP         180 EP         270 EP         270 EP         50 EP           5											
5 Yr         Female         35 - 39         1.440         0.795         0.554         0.480         0.424         0.370         0.324         0.280           5 Yr         Female         40 - 44         1.600         1.010         0.741         0.654         0.590         0.525         0.467         0.410           5 Yr         Female         45 - 49         1.910         1.324         0.986         0.885         0.809         0.733         0.653         0.572           5 Yr         Female         50 - 54         2.311         1.738         1.348         1.215         1.115         1.015         0.915         0.817           5 Yr         Female         60 & up         4.991         3.952         3.080         2.894         2.756         2.616         2.236         1.856           Plan Base Rate per \$100 Monthly Indemnity           Duration         Sex         Age         30 EP         60 EP         90 EP         120 EP         150 EP         180 EP         270 EP         360 EP           5 Yr / RBD         Male         25 - 29         0.389         0.259         0.188         0.167         0.150         0.134         0.108         0.082           <	5 Yr	Female	30 - 34	1.421	0.601	0.401	0.340	0.296	0.250	0.220	0.189
5 Yr         Female         40 - 44         1.600         1.010         0.741         0.654         0.590         0.525         0.467         0.410           5 Yr         Female         45 - 49         1.910         1.324         0.986         0.885         0.809         0.733         0.653         0.572           5 Yr         Female         50 - 54         2.311         1.738         1.348         1.215         1.115         1.015         0.915         0.817           5 Yr         Female         55 - 59         2.997         2.300         1.839         1.692         1.581         1.470         1.353         1.234           5 Yr         Female         60 & up         4.991         3.952         3.080         2.894         2.756         2.616         2.236         1.856           Plan Base Rate per \$100 Monthly Indemnity           Duration         Sex         Age         30 EP         60 EP         90 EP         120 EP         150 EP         180 EP         270 EP         360 EP           5 Yr / RBD         Male         2 5 29         0.385         0.230         0.157         0.140         0.127         0.114         0.091         0.068 <tr< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr<>											
5 Yr         Female         50 - 54         2.311         1.738         1.348         1.215         1.115         1.015         0.915         0.817           5 Yr         Female         55 - 59         2.997         2.300         1.839         1.692         1.581         1.470         1.353         1.234           5 Yr         Female         60 & up         4.991         3.952         3.080         2.894         2.756         2.616         2.236         1.856           Plan Base Rate per \$100 Monthly Indemnity           Duration         Sex         Age         30 EP         60 EP         90 EP         120 EP         150 EP         180 EP         270 EP         360 EP           5 Yr/RBD         Male         < 25	5 Yr	Female	40 - 44	1.600	1.010	0.741	0.654	0.590	0.525	0.467	0.410
5 Yr         Female         55 - 59         2.997         2.300         1.839         1.692         1.581         1.470         1.353         1.234           5 Yr         Female         60 & up         4.991         3.952         3.080         2.894         2.756         2.616         2.236         1.856           Benefit         Plan Base Rate per \$100 Monthly Indemnity           Duration         Sex         Age         30 EP         60 EP         90 EP         120 EP         150 EP         180 EP         270 EP         360 EP           5 Yr/RBD         Male         25 - 29         0.385         0.230         0.157         0.140         0.127         0.114         0.091         0.068           5 Yr/RBD         Male         25 - 29         0.399         0.259         0.188         0.167         0.150         0.134         0.108         0.082           5 Yr/RBD         Male         35 - 39         0.630         0.488         0.373         0.336         0.381         0.241         0.203           5 Yr/RBD         Male         45 - 49         1.445         1.146         0.904         0.828         0.771         0.715 </td <td>5 Yr</td> <td>Female</td> <td>45 - 49</td> <td>1.910</td> <td>1.324</td> <td>0.986</td> <td>0.885</td> <td>0.809</td> <td>0.733</td> <td>0.653</td> <td>0.572</td>	5 Yr	Female	45 - 49	1.910	1.324	0.986	0.885	0.809	0.733	0.653	0.572
Benefit         Plan Base Rate per \$100 Monthly Indemnity           Duration         Sex         Age         30 EP         60 EP         90 EP         120 EP         150 EP         180 EP         270 EP         360 EP           5 Yr / RBD         Male         < 2.5	5 Yr	Female	50 - 54	2.311	1.738	1.348	1.215	1.115	1.015	0.915	0.817
Benefit         Plan Base Rate per \$100 Monthly Indemnity           Duration         Sex         Age         30 EP         60 EP         90 EP         120 EP         150 EP         180 EP         270 EP         360 EP           5 Yr / RBD         Male         < 25	5 Yr	Female	55 - 59	2.997	2.300	1.839	1.692	1.581	1.470	1.353	1.234
Duration         Sex         Age         30 EP         60 EP         90 EP         120 EP         150 EP         180 EP         270 EP         360 EP           5 Yr / RBD         Male         < 25	5 Yr	Female	60 & up	4.991	3.952	3.080	2.894	2.756	2.616	2.236	1.856
Duration         Sex         Age         30 EP         60 EP         90 EP         120 EP         150 EP         180 EP         270 EP         360 EP           5 Yr / RBD         Male         < 25											
5 Yr / RBD         Male         < 25         0.385         0.230         0.157         0.140         0.127         0.114         0.091         0.068           5 Yr / RBD         Male         25 - 29         0.399         0.259         0.188         0.167         0.150         0.134         0.108         0.082           5 Yr / RBD         Male         30 - 34         0.477         0.347         0.258         0.231         0.212         0.192         0.162         0.132           5 Yr / RBD         Male         35 - 39         0.630         0.488         0.373         0.336         0.308         0.281         0.241         0.203           5 Yr / RBD         Male         40 - 44         0.925         0.709         0.554         0.503         0.465         0.427         0.374         0.321           5 Yr / RBD         Male         45 - 49         1.445         1.146         0.904         0.828         0.771         0.715         0.627         0.542           5 Yr / RBD         Male         50 - 54         2.282         1.817         1.444         1.331         1.247         1.164         1.012         0.859           5 Yr / RBD         Male         60 & up         4.192	Benefit			]	Plan Base I	Rate per \$1	00 Monthly	y Indemnit	y		
5 Yr / RBD         Male         25 - 29         0.399         0.259         0.188         0.167         0.150         0.134         0.108         0.082           5 Yr / RBD         Male         30 - 34         0.477         0.347         0.258         0.231         0.212         0.192         0.162         0.132           5 Yr / RBD         Male         35 - 39         0.630         0.488         0.373         0.336         0.308         0.281         0.241         0.203           5 Yr / RBD         Male         40 - 44         0.925         0.709         0.554         0.503         0.465         0.427         0.374         0.321           5 Yr / RBD         Male         45 - 49         1.445         1.146         0.904         0.828         0.771         0.715         0.627         0.542           5 Yr / RBD         Male         50 - 54         2.282         1.817         1.444         1.331         1.247         1.164         1.012         0.859           5 Yr / RBD         Male         55 - 59         3.454         2.761         2.190         2.011         1.877         1.744         1.506         1.266           5 Yr / RBD         Male         60 & up         4.	<b>Duration</b>	Sex	Age	30 EP	<u>60 EP</u>	90 EP	120 EP	150 EP	180 EP	270 EP	360 EP
5 Yr / RBD         Male         30 - 34         0.477         0.347         0.258         0.231         0.212         0.192         0.162         0.132           5 Yr / RBD         Male         35 - 39         0.630         0.488         0.373         0.336         0.308         0.281         0.241         0.203           5 Yr / RBD         Male         40 - 44         0.925         0.709         0.554         0.503         0.465         0.427         0.374         0.321           5 Yr / RBD         Male         45 - 49         1.445         1.146         0.904         0.828         0.771         0.715         0.627         0.542           5 Yr / RBD         Male         50 - 54         2.282         1.817         1.444         1.331         1.247         1.164         1.012         0.859           5 Yr / RBD         Male         55 - 59         3.454         2.761         2.190         2.011         1.877         1.744         1.506         1.266           5 Yr / RBD         Male         60 & up         4.192         3.471         2.790         2.554         2.378         2.201         1.874         1.547           5 Yr / RBD         Female         25 - 29	5 Yr / RBD	Male	< 25	0.385	0.230	0.157	0.140	0.127	0.114	0.091	0.068
5 Yr / RBD         Male         35 - 39         0.630         0.488         0.373         0.336         0.308         0.281         0.241         0.203           5 Yr / RBD         Male         40 - 44         0.925         0.709         0.554         0.503         0.465         0.427         0.374         0.321           5 Yr / RBD         Male         45 - 49         1.445         1.146         0.904         0.828         0.771         0.715         0.627         0.542           5 Yr / RBD         Male         50 - 54         2.282         1.817         1.444         1.331         1.247         1.164         1.012         0.859           5 Yr / RBD         Male         55 - 59         3.454         2.761         2.190         2.011         1.877         1.744         1.506         1.266           5 Yr / RBD         Male         60 & up         4.192         3.471         2.790         2.554         2.378         2.201         1.874         1.547           5 Yr / RBD         Female         < 25	5 Yr / RBD	Male	25 - 29	0.399	0.259	0.188	0.167	0.150	0.134	0.108	0.082
5 Yr / RBD         Male         40 - 44         0.925         0.709         0.554         0.503         0.465         0.427         0.374         0.321           5 Yr / RBD         Male         45 - 49         1.445         1.146         0.904         0.828         0.771         0.715         0.627         0.542           5 Yr / RBD         Male         50 - 54         2.282         1.817         1.444         1.331         1.247         1.164         1.012         0.859           5 Yr / RBD         Male         55 - 59         3.454         2.761         2.190         2.011         1.877         1.744         1.506         1.266           5 Yr / RBD         Male         60 & up         4.192         3.471         2.790         2.554         2.378         2.201         1.874         1.547           5 Yr / RBD         Female         < 25	5 Yr / RBD	Male	30 - 34	0.477	0.347	0.258	0.231	0.212	0.192	0.162	0.132
5 Yr / RBD         Male         45 - 49         1.445         1.146         0.904         0.828         0.771         0.715         0.627         0.542           5 Yr / RBD         Male         50 - 54         2.282         1.817         1.444         1.331         1.247         1.164         1.012         0.859           5 Yr / RBD         Male         55 - 59         3.454         2.761         2.190         2.011         1.877         1.744         1.506         1.266           5 Yr / RBD         Male         60 & up         4.192         3.471         2.790         2.554         2.378         2.201         1.874         1.547           5 Yr / RBD         Female         < 25	5 Yr / RBD	Male	35 - 39	0.630	0.488	0.373	0.336	0.308	0.281	0.241	0.203
5 Yr / RBD         Male         50 - 54         2.282         1.817         1.444         1.331         1.247         1.164         1.012         0.859           5 Yr / RBD         Male         55 - 59         3.454         2.761         2.190         2.011         1.877         1.744         1.506         1.266           5 Yr / RBD         Male         60 & up         4.192         3.471         2.790         2.554         2.378         2.201         1.874         1.547           5 Yr / RBD         Female         < 25	5 Yr / RBD	Male	40 - 44	0.925	0.709	0.554	0.503	0.465	0.427	0.374	0.321
5 Yr / RBD         Male         55 - 59         3.454         2.761         2.190         2.011         1.877         1.744         1.506         1.266           5 Yr / RBD         Male         60 & up         4.192         3.471         2.790         2.554         2.378         2.201         1.874         1.547           5 Yr / RBD         Female         < 25	5 Yr / RBD	Male	45 - 49	1.445	1.146	0.904	0.828	0.771	0.715	0.627	0.542
5 Yr / RBD         Male         60 & up         4.192         3.471         2.790         2.554         2.378         2.201         1.874         1.547           5 Yr / RBD         Female         < 25	5 Yr / RBD	Male	50 - 54	2.282	1.817	1.444	1.331	1.247	1.164	1.012	0.859
5 Yr / RBD         Female         < 25	5 Yr / RBD	Male	55 - 59	3.454	2.761	2.190	2.011	1.877	1.744	1.506	1.266
5 Yr / RBD       Female       25 - 29       1.273       0.496       0.277       0.231       0.197       0.164       0.143       0.121         5 Yr / RBD       Female       30 - 34       1.421       0.601       0.401       0.340       0.296       0.250       0.220       0.189         5 Yr / RBD       Female       35 - 39       1.440       0.795       0.554       0.480       0.424       0.370       0.324       0.280         5 Yr / RBD       Female       40 - 44       1.600       1.010       0.741       0.654       0.590       0.525       0.467       0.410         5 Yr / RBD       Female       45 - 49       1.910       1.324       0.986       0.885       0.809       0.733       0.653       0.572         5 Yr / RBD       Female       50 - 54       2.311       1.738       1.348       1.215       1.115       1.015       0.915       0.817         5 Yr / RBD       Female       55 - 59       2.997       2.300       1.839       1.692       1.581       1.470       1.353       1.234	5 Yr / RBD	Male	60 & up	4.192	3.471	2.790	2.554	2.378	2.201	1.874	1.547
5 Yr / RBD     Female     30 - 34     1.421     0.601     0.401     0.340     0.296     0.250     0.220     0.189       5 Yr / RBD     Female     35 - 39     1.440     0.795     0.554     0.480     0.424     0.370     0.324     0.280       5 Yr / RBD     Female     40 - 44     1.600     1.010     0.741     0.654     0.590     0.525     0.467     0.410       5 Yr / RBD     Female     45 - 49     1.910     1.324     0.986     0.885     0.809     0.733     0.653     0.572       5 Yr / RBD     Female     50 - 54     2.311     1.738     1.348     1.215     1.115     1.015     0.915     0.817       5 Yr / RBD     Female     55 - 59     2.997     2.300     1.839     1.692     1.581     1.470     1.353     1.234	5 Yr / RBD	Female	< 25	1.002	0.359		0.157	0.136	0.115	0.100	0.086
5 Yr / RBD     Female     35 - 39     1.440     0.795     0.554     0.480     0.424     0.370     0.324     0.280       5 Yr / RBD     Female     40 - 44     1.600     1.010     0.741     0.654     0.590     0.525     0.467     0.410       5 Yr / RBD     Female     45 - 49     1.910     1.324     0.986     0.885     0.809     0.733     0.653     0.572       5 Yr / RBD     Female     50 - 54     2.311     1.738     1.348     1.215     1.115     1.015     0.915     0.817       5 Yr / RBD     Female     55 - 59     2.997     2.300     1.839     1.692     1.581     1.470     1.353     1.234	5 Yr / RBD	Female	25 - 29	1.273	0.496	0.277	0.231	0.197	0.164	0.143	0.121
5 Yr / RBD         Female         40 - 44         1.600         1.010         0.741         0.654         0.590         0.525         0.467         0.410           5 Yr / RBD         Female         45 - 49         1.910         1.324         0.986         0.885         0.809         0.733         0.653         0.572           5 Yr / RBD         Female         50 - 54         2.311         1.738         1.348         1.215         1.115         1.015         0.915         0.817           5 Yr / RBD         Female         55 - 59         2.997         2.300         1.839         1.692         1.581         1.470         1.353         1.234	5 Yr / RBD	Female	30 - 34	1.421	0.601	0.401	0.340	0.296	0.250	0.220	0.189
5 Yr / RBD Female     45 - 49     1.910     1.324     0.986     0.885     0.809     0.733     0.653     0.572       5 Yr / RBD Female     50 - 54     2.311     1.738     1.348     1.215     1.115     1.015     0.915     0.817       5 Yr / RBD Female     55 - 59     2.997     2.300     1.839     1.692     1.581     1.470     1.353     1.234	5 Yr / RBD	Female	35 - 39	1.440	0.795	0.554	0.480	0.424	0.370	0.324	0.280
5 Yr / RBD Female     50 - 54     2.311     1.738     1.348     1.215     1.115     1.015     0.915     0.817       5 Yr / RBD Female     55 - 59     2.997     2.300     1.839     1.692     1.581     1.470     1.353     1.234	5 Yr / RBD	Female	40 - 44	1.600	1.010	0.741	0.654	0.590	0.525	0.467	0.410
5 Yr / RBD Female 55 - 59 2.997 2.300 1.839 1.692 1.581 1.470 1.353 1.234	5 Yr / RBD	Female	45 - 49	1.910	1.324	0.986	0.885	0.809	0.733	0.653	0.572
	5 Yr / RBD	Female	50 - 54	2.311	1.738	1.348	1.215	1.115	1.015	0.915	0.817
5 Yr / RBD   Female   60 & up   3.614   2.930   2.391   2.191   2.041   1.891   1.713   1.535	5 Yr / RBD	Female	55 - 59	2.997	2.300	1.839	1.692	1.581	1.470	1.353	1.234
	5 Yr / RBD	Female	60 & up	3.614	2.930	2.391	2.191	2.041	1.891	1.713	1.535

Benefit			]	Plan Base I	Rate per \$1	00 Monthl	y Indemnit	y		
Duration	Sex	Age	30 EP	<u>60 EP</u>	90 EP	120 EP	150 EP	180 EP	270 EP	360 EP
4 Yr	Male	< 25	0.344	0.197	0.133	0.117	0.105	0.094	0.074	0.054
4 Yr	Male	25 - 29	0.350	0.219	0.156	0.137	0.122	0.107	0.086	0.064
4 Yr	Male	30 - 34	0.411	0.285	0.209	0.185	0.167	0.150	0.126	0.100
4 Yr	Male	35 - 39	0.534	0.394	0.293	0.261	0.238	0.213	0.182	0.150
4 Yr	Male	40 - 44	0.764	0.556	0.423	0.381	0.348	0.317	0.275	0.234
4 Yr	Male	45 - 49	1.166	0.877	0.674	0.612	0.566	0.520	0.454	0.388
4 Yr	Male	50 - 54	1.798	1.361	1.057	0.968	0.901	0.834	0.721	0.608
4 Yr	Male	55 - 59	2.649	2.020	1.565	1.433	1.335	1.235	1.062	0.888
4 Yr	Male	60 & up	4.989	3.684	2.843	2.597	2.412	2.227	1.839	1.452
4 Yr	Female	< 25	0.941	0.314	0.154	0.130	0.111	0.093	0.078	0.065
4 Yr	Female	25 - 29	1.159	0.420	0.226	0.187	0.158	0.128	0.110	0.091
4 Yr	Female	30 - 34	1.267	0.492	0.319	0.267	0.230	0.191	0.166	0.140
4 Yr	Female	35 - 39	1.261	0.638	0.430	0.367	0.321	0.275	0.239	0.203
4 Yr	Female	40 - 44	1.355	0.789	0.560	0.489	0.436	0.383	0.338	0.292
4 Yr	Female	45 - 49	1.558	1.005	0.728	0.646	0.586	0.526	0.464	0.401
4 Yr	Female	50 - 54	1.843	1.296	0.976	0.872	0.795	0.717	0.643	0.568
4 Yr	Female	55 - 59	2.328	1.674	1.300	1.191	1.109	1.026	0.939	0.851
4 Yr	Female	60 & up	4.087	3.031	2.299	2.160	2.057	1.953	1.688	1.424
Benefit			]	Plan Base I	Rate per \$1	00 Monthl	y Indemnit	y		
<b>Duration</b>	<u>Sex</u>	<u>Age</u>	<u> 30 EP</u>	<u>60 EP</u>	<u>90 EP</u>	<u>120 EP</u>	150 EP	<u>180 EP</u>	270 EP	360 EP
4 Yr / RBD	Male	< 25	0.369	0.217	0.147	0.131	0.118	0.106	0.084	0.062
4 Yr / RBD	Male	25 - 29	0.379	0.243	0.175	0.155	0.139	0.123	0.099	0.075
4 Yr / RBD	Male	30 - 34	0.451	0.322	0.239	0.213	0.194	0.175	0.148	0.119
4 Yr / RBD	Male	35 - 39	0.591	0.450	0.341	0.306	0.280	0.254	0.217	0.182
4 Yr / RBD	Male	40 - 44	0.861	0.648	0.501	0.454	0.419	0.383	0.335	0.286
4 Yr / RBD	Male	45 - 49	1.333	1.038	0.812	0.742	0.689	0.637	0.558	0.480
4 Yr / RBD	Male	50 - 54	2.088	1.635	1.289	1.186	1.109	1.032	0.895	0.759
4 Yr / RBD	Male	55 - 59	3.132	2.465	1.940	1.779	1.660	1.540	1.328	1.115
4 Yr / RBD	Male	60 & up	4.157	3.399	2.721	2.488	2.313	2.138	1.821	1.488
4 Yr / RBD	Female	< 25	0.977	0.341	0.172	0.146	0.126	0.106	0.091	0.077
4 Yr / RBD	Female	25 - 29	1.227	0.466	0.257	0.214	0.181	0.149	0.130	0.109
4 Yr / RBD	Female	30 - 34	1.360	0.558	0.368	0.311	0.269	0.226	0.198	0.169
4 Yr / RBD	Female	35 - 39	1.368	0.732	0.504	0.435	0.383	0.332	0.290	0.249
4 Yr / RBD	Female	40 - 44	1.502	0.922	0.668	0.588	0.528	0.468	0.415	0.363
4 Yr / RBD	Female	45 - 49	1.769	1.196	0.883	0.789	0.720	0.650	0.577	0.503
4 Yr / RBD	Female	50 - 54	2.124	1.561	1.199	1.078	0.987	0.896	0.806	0.717
4 Yr / RBD	Female	55 - 59	2.730	2.050	1.623	1.491	1.392	1.292	1.187	1.081
4 Yr / RBD	Female	60 & up	3.540	2.848	2.311	2.119	1.977	1.835	1.662	1.477

Benefit			]	Plan Base I	Rate per \$1	00 Monthl	y Indemnit	y		
Duration	Sex	Age	30 EP	<u>60 EP</u>	90 EP	120 EP	150 EP	180 EP	270 EP	360 EP
3 Yr	Male	< 25	0.344	0.197	0.133	0.117	0.105	0.094	0.074	0.054
3 Yr	Male	25 - 29	0.350	0.219	0.156	0.137	0.122	0.107	0.086	0.064
3 Yr	Male	30 - 34	0.411	0.285	0.209	0.185	0.167	0.150	0.126	0.100
3 Yr	Male	35 - 39	0.534	0.394	0.293	0.261	0.238	0.213	0.182	0.150
3 Yr	Male	40 - 44	0.764	0.556	0.423	0.381	0.348	0.317	0.275	0.234
3 Yr	Male	45 - 49	1.166	0.877	0.674	0.612	0.566	0.520	0.454	0.388
3 Yr	Male	50 - 54	1.798	1.361	1.057	0.968	0.901	0.834	0.721	0.608
3 Yr	Male	55 - 59	2.649	2.020	1.565	1.433	1.335	1.235	1.062	0.888
3 Yr	Male	60 & up	4.989	3.684	2.843	2.597	2.412	2.227	1.839	1.452
3 Yr	Female	< 25	0.941	0.314	0.154	0.130	0.111	0.093	0.078	0.065
3 Yr	Female	25 - 29	1.159	0.420	0.226	0.187	0.158	0.128	0.110	0.091
3 Yr	Female	30 - 34	1.267	0.492	0.319	0.267	0.230	0.191	0.166	0.140
3 Yr	Female	35 - 39	1.261	0.638	0.430	0.367	0.321	0.275	0.239	0.203
3 Yr	Female	40 - 44	1.355	0.789	0.560	0.489	0.436	0.383	0.338	0.292
3 Yr	Female	45 - 49	1.558	1.005	0.728	0.646	0.586	0.526	0.464	0.401
3 Yr	Female	50 - 54	1.843	1.296	0.976	0.872	0.795	0.717	0.643	0.568
3 Yr	Female	55 - 59	2.328	1.674	1.300	1.191	1.109	1.026	0.939	0.851
3 Yr	Female	60 & up	4.087	3.031	2.299	2.160	2.057	1.953	1.688	1.424
Benefit			]	Plan Base I	Rate per \$1	00 Monthl	y Indemnit	y		
<b>Duration</b>	Sex	<u>Age</u>	30 EP	<u>60 EP</u>	<u>90 EP</u>	<u>120 EP</u>	150 EP	180 EP	270 EP	360 EP
3 Yr / RBD	Male	< 25	0.344	0.197	0.133	0.117	0.105	0.094	0.074	0.054
3 Yr / RBD	Male	25 - 29	0.350	0.219	0.156	0.137	0.122	0.107	0.086	0.064
3 Yr / RBD	Male	30 - 34	0.411	0.285	0.209	0.185	0.167	0.150	0.126	0.100
3 Yr / RBD	Male	35 - 39	0.534	0.394	0.293	0.261	0.238	0.213	0.182	0.150
3 Yr / RBD	Male	40 - 44	0.764	0.556	0.423	0.381	0.348	0.317	0.275	0.234
3 Yr / RBD	Male	45 - 49	1.166	0.877	0.674	0.612	0.566	0.520	0.454	0.388
3 Yr / RBD	Male	50 - 54	1.798	1.361	1.057	0.968	0.901	0.834	0.721	0.608
3 Yr / RBD	Male	55 - 59	2.649	2.020	1.565	1.433	1.335	1.235	1.062	0.888
3 Yr / RBD	Male	60 & up	4.103	3.290	2.618	2.390	2.217	2.044	1.741	1.400
3 Yr / RBD	Female	< 25	0.941	0.314	0.154	0.130	0.111	0.093	0.078	0.065
3 Yr / RBD	Female	25 - 29	1.159	0.420	0.226	0.187	0.158	0.128	0.110	0.091
3 Yr / RBD	Female	30 - 34	1.267	0.492	0.319	0.267	0.230	0.191	0.166	0.140
3 Yr / RBD	Female	35 - 39	1.261	0.638	0.430	0.367	0.321	0.275	0.239	0.203
3 Yr / RBD	Female	40 - 44	1.355	0.789	0.560	0.489	0.436	0.383	0.338	0.292
3 Yr / RBD	Female	45 - 49	1.558	1.005	0.728	0.646	0.586	0.526	0.464	0.401
3 Yr / RBD	Female	50 - 54	1.843	1.296	0.976	0.872	0.795	0.717	0.643	0.568
3 Yr / RBD	Female	55 - 59	2.328	1.674	1.300	1.191	1.109	1.026	0.939	0.851
3 Yr / RBD	Female	60 & up	3.431	2.726	2.191	2.012	1.882	1.751	1.586	1.390
-										

Group Worksite LTD Manual Premium Calculation

Benefit			]	Plan Base I	Rate per \$1	00 Monthl	y Indemnit	y		
Duration	Sex	Age	30 EP	<u>60 EP</u>	90 EP	120 EP	150 EP	180 EP	270 EP	360 EP
2 Yr	Male	< 25	0.308	0.169	0.113	0.097	0.087	0.076	0.059	0.043
2 Yr	Male	25 - 29	0.310	0.185	0.130	0.112	0.099	0.086	0.068	0.050
2 Yr	Male	30 - 34	0.358	0.238	0.170	0.149	0.133	0.118	0.098	0.078
2 Yr	Male	35 - 39	0.459	0.322	0.234	0.207	0.186	0.166	0.140	0.115
2 Yr	Male	40 - 44	0.646	0.448	0.333	0.297	0.269	0.242	0.209	0.176
2 Yr	Male	45 - 49	0.969	0.695	0.520	0.468	0.430	0.392	0.340	0.289
2 Yr	Male	50 - 54	1.463	1.057	0.799	0.728	0.673	0.619	0.534	0.449
2 Yr	Male	55 - 59	2.096	1.530	1.157	1.057	0.981	0.905	0.777	0.648
2 Yr	Male	60 & up	3.864	3.038	2.398	2.185	2.023	1.862	1.586	1.274
2 Yr	Female	< 25	0.886	0.278	0.131	0.108	0.091	0.075	0.062	0.051
2 Yr	Female	25 - 29	1.069	0.365	0.187	0.153	0.128	0.101	0.086	0.071
2 Yr	Female	30 - 34	1.148	0.414	0.259	0.215	0.183	0.149	0.129	0.107
2 Yr	Female	35 - 39	1.132	0.530	0.344	0.291	0.251	0.212	0.183	0.153
2 Yr	Female	40 - 44	1.184	0.639	0.439	0.380	0.336	0.290	0.254	0.219
2 Yr	Female	45 - 49	1.320	0.797	0.561	0.493	0.443	0.393	0.345	0.297
2 Yr	Female	50 - 54	1.526	1.009	0.738	0.655	0.592	0.530	0.473	0.415
2 Yr	Female	55 - 59	1.877	1.272	0.960	0.876	0.813	0.750	0.682	0.617
2 Yr	Female	60 & up	3.265	2.543	2.021	1.852	1.727	1.588	1.437	1.265
Benefit			]	Plan Base I	Rate per \$1	00 Monthl	y Indemnit	y		
<b>Duration</b>	Sex	<u>Age</u>	30 EP	<u>60 EP</u>	<u>90 EP</u>	<u>120 EP</u>	150 EP	180 EP	270 EP	360 EP
2 Yr / RBD	Male	< 25	0.308	0.169	0.113	0.097	0.087	0.076	0.059	0.043
2 Yr / RBD	Male	25 - 29	0.310	0.185	0.130	0.112	0.099	0.086	0.068	0.050
2 Yr / RBD	Male	30 - 34	0.358	0.238	0.170	0.149	0.133	0.118	0.098	0.078
2 Yr / RBD	Male	35 - 39	0.459	0.322	0.234	0.207	0.186	0.166	0.140	0.115
2 Yr / RBD	Male	40 - 44	0.646	0.448	0.333	0.297	0.269	0.242	0.209	0.176
2 Yr / RBD	Male	45 - 49	0.969	0.695	0.520	0.468	0.430	0.392	0.340	0.289
2 Yr / RBD	Male	50 - 54	1.463	1.057	0.799	0.728	0.673	0.619	0.534	0.449
2 Yr / RBD	Male	55 - 59	2.096	1.530	1.157	1.057	0.981	0.905	0.777	0.648
2 Yr / RBD	Male	60 & up	3.671	2.886	2.278	2.076	1.922	1.769	1.507	1.211
2 Yr / RBD	Female	< 25	0.886	0.278	0.131	0.108	0.091	0.075	0.062	0.051
2 Yr / RBD	Female	25 - 29	1.069	0.365	0.187	0.153	0.128	0.101	0.086	0.071
2 Yr / RBD	Female	30 - 34	1.148	0.414	0.259	0.215	0.183	0.149	0.129	0.107
2 Yr / RBD	Female	35 - 39	1.132	0.530	0.344	0.291	0.251	0.212	0.183	0.153
2 Yr / RBD	Female	40 - 44	1.184	0.639	0.439	0.380	0.336	0.290	0.254	0.219
2 Yr / RBD	Female	45 - 49	1.320	0.797	0.561	0.493	0.443	0.393	0.345	0.297
2 Yr / RBD	Female	50 - 54	1.526	1.009	0.738	0.655	0.592	0.530	0.473	0.415
2 Yr / RBD	Female	55 - 59	1.877	1.272	0.960	0.876	0.813	0.750	0.682	0.617
2 Yr / RBD	Female	60 & up	3.101	2.416	1.920	1.760	1.641	1.508	1.365	1.202

Group Worksite LTD Manual Premium Calculation

Benefit			]	Plan Base I	Rate per \$1	00 Monthly	y Indemnit	y		
Duration	Sex	Age	30 EP	60 EP	90 EP	120 EP	150 EP	180 EP	270 EP	360 EP
1 Yr	Male	< 25	0.256	0.128	0.080	0.068	0.059	0.050	0.039	0.026
1 Yr	Male	25 - 29	0.247	0.135	0.090	0.076	0.065	0.055	0.042	0.031
1 Yr	Male	30 - 34	0.279	0.169	0.114	0.098	0.086	0.075	0.060	0.046
1 Yr	Male	35 - 39	0.347	0.223	0.154	0.133	0.117	0.102	0.086	0.068
1 Yr	Male	40 - 44	0.475	0.302	0.212	0.185	0.166	0.146	0.124	0.102
1 Yr	Male	45 - 49	0.688	0.452	0.321	0.285	0.258	0.231	0.199	0.166
1 Yr	Male	50 - 54	1.003	0.667	0.481	0.432	0.395	0.358	0.305	0.251
1 Yr	Male	55 - 59	1.364	0.923	0.668	0.607	0.561	0.514	0.436	0.357
1 Yr	Male	60 & up	2.822	1.873	1.358	1.238	1.148	1.058	0.886	0.713
1 Yr	Female	< 25	0.827	0.228	0.095	0.077	0.063	0.050	0.041	0.032
1 Yr	Female	25 - 29	0.942	0.284	0.132	0.106	0.086	0.065	0.054	0.042
1 Yr	Female	30 - 34	0.981	0.305	0.177	0.144	0.119	0.095	0.078	0.063
1 Yr	Female	35 - 39	0.955	0.382	0.229	0.189	0.161	0.131	0.111	0.090
1 Yr	Female	40 - 44	0.953	0.443	0.283	0.240	0.208	0.175	0.150	0.126
1 Yr	Female	45 - 49	0.995	0.529	0.350	0.303	0.268	0.233	0.201	0.168
1 Yr	Female	50 - 54	1.090	0.646	0.447	0.392	0.350	0.307	0.269	0.231
1 Yr	Female	55 - 59	1.263	0.777	0.558	0.505	0.466	0.427	0.382	0.338
1 Yr	Female	60 & up	2.373	1.527	1.076	1.008	0.958	0.906	0.792	0.678
Benefit			]	Plan Base I	Rate per \$1	00 Monthly	y Indemnit	y		
<b>Duration</b>	<u>Sex</u>	<u>Age</u>	30 EP	<u>60 EP</u>	<u>90 EP</u>	120 EP	<u>150 EP</u>	<u>180 EP</u>	270 EP	360 EP
2Yr / ADL	Male	< 25	0.322	0.180	0.121	0.106	0.095	0.084	0.067	0.050
2Yr / ADL	Male	25 - 29	0.337	0.205	0.146	0.128	0.114	0.101	0.081	0.060
2Yr / ADL	Male	30 - 34	0.405	0.276	0.202	0.180	0.164	0.148	0.124	0.100
2Yr / ADL	Male	35 - 39	0.541	0.394	0.293	0.264	0.242	0.220	0.188	0.158
2Yr / ADL	Male	40 - 44	0.840	0.607	0.461	0.416	0.382	0.347	0.307	0.267
2Yr / ADL	Male	45 - 49	1.360	1.024	0.788	0.718	0.666	0.612	0.544	0.473
2Yr / ADL	Male	50 - 54	2.124	1.622	1.268	1.171	1.099	1.024	0.889	0.753
2Yr / ADL	Male	55 - 59	2.993	2.344	1.837	1.688	1.575	1.465	1.247	1.031
2Yr / ADL	Male	60 & up	4.223	3.383	2.692	2.458	2.279	2.102	1.780	1.443
2Yr / ADL	Female	< 25	0.910	0.293	0.140	0.118	0.101	0.086	0.071	0.059
2Yr / ADL	Female	25 - 29	1.118	0.397	0.210	0.174	0.148	0.121	0.104	0.087
2Yr / ADL	Female	30 - 34	1.225	0.468	0.300	0.254	0.221	0.186	0.163	0.138
2Yr / ADL	Female	35 - 39	1.235	0.622	0.416	0.359	0.320	0.280	0.245	0.209
2Yr / ADL	Female	40 - 44	1.393	0.821	0.582	0.511	0.464	0.415	0.373	0.328
2Yr / ADL	Female	45 - 49	1.697	1.139	0.828	0.743	0.687	0.631	0.564	0.496
2Yr / ADL	Female	50 - 54	2.083	1.549	1.176	1.068	1.004	0.936	0.833	0.734
2Yr / ADL	Female	55 - 59	2.576	1.985	1.568	1.440	1.364	1.285	1.145	1.009
2Yr / ADL	Female	60 & up	3.541	2.812	2.258	2.073	1.940	1.803	1.624	1.434

Group Worksite LTD Manual Premium Calculation

### **Social Security Probability Table**

	Probability of	f Primary Award	<b>Probability of Family Award</b>		
<u>Age</u>	Male	<u>Female</u>	Male	<u>Female</u>	
< 25	50%	40%	8%	10%	
25 - 29	55%	45%	17%	16%	
30 - 34	60%	50%	27%	23%	
35 - 39	65%	55%	29%	19%	
40 - 44	70%	60%	28%	15%	
45 - 49	75%	65%	23%	10%	
50 - 54	80%	70%	12%	4%	
55 - 59	80%	70%	4%	1%	
60 & up	85%	75%	13%	4%	

The probabilities above are multiplied by a factor which varies by Benefit Duration:

<b>Duration</b>	<u>Factor</u>
Over 5 Years	1.00
5 Years	0.95
4 Years	0.925
3 Years	0.90
2 Years	0.80
1 Year	0.70

### **Notes**

- (1) The benefits for 1 year, 2 years, 3 years, 5 years, 10 years, and T70 durations do not extend beyond age 70, except that 12 months of benefits will be paid for disabilities commencing after attaining age 69.
- (2) The 65/5/70 benefit duration is a graded benefit based on attained age at disability as follows:

Age at Disability	Benefit Duration
< 60	To age 65
60 - 64	5 Years
65 - 69	To age 70, but not less than 1 Year
70 & up	1 Year

(3) The RBD plan is a "reducing benefit duration" which depends on the attained age at disability and is designed to meet the requirements of the Age Discrimination in Employment Act (ADEA):

Age at		Age at	
<b>Disability</b>	Benefit Duration	Disability Benefi	t Duration
<60	To age 65	65 24:	months
60	60 months	66 21:	months
61	48 months	67 18:	months
62	42 months	68 15:	months
63	36 months	69 & over 12:	months
64	30 months		

Group Worksite LTD Manual Premium Calculation

(4) The SSNRA plan (Social Security Normal Retirement Age) is a plan that pays benefits to the later of the RBD plan or the following schedule:

Year of Birth	Benefit Duration	Year of Birth	<b>Benefit Duration</b>
Before 1938	To Age 65	1943-1954	To Age 66
1938	Age $65 + 2$ months	1955	Age $66 + 2$ months
1939	Age $65 + 4$ months	1956	Age $66 + 4$ months
1940	Age $65 + 6$ months	1957	Age $66 + 6$ months
1941	Age $65 + 8$ months	1958	Age $66 + 8$ months
1942	Age $65 + 10$ months	1959	Age $66 + 10$ months
	_	After 1959	To Age 67

- (5) In Vermont, 1 year duration plans are not allowed with elimination periods longer than 90 days. 2 year duration plans are not allowed with elimination periods longer than 180 days. However, if an STD or Salary Continuation plan is also inforce, this restriction does not apply as long as LTD benefits integrate seamlessly with these other benefits.
- (6) In Vermont, benefit limitations such as those described on page 6, (Plan Design Adjustment: F-9), are not allowed.
- (7) There may be some infrequent product variations, (e.g., base/buyup plans), that cannot be rated based solely upon the algorithm provided in this rate manaul. These cases must be referred to the home office for calculation.
- (8) In any case where there exists a risk not provided for in this rate manual, an appropriate adjustment will be made. Rates for plans of insurance other than those shown in this manual will be calculated on a basis actuarially consistent with the rules set forth herein and must be referred to the home office for calculation.

Group Worksite LTD Manual Premium Calculation

### **Group LTD Credibility Formula**

Step 1

Calculate the Total Number of Life-Years of exposure on a policy according to the following worksheet. Up to three years of non-IBNR experience may be used in this calculation.

Experience Year	Number of Lives	Portion of Year Exposed	Number of Life Years
Current Year	L1	P1	$L1 \times P1 = a$
Prior Year	L2	P2	$L2 \times P2 = b$
Prior Year - 1	L3	P3	$L3 \times P3 = c$

The Total Number of Life-Years is set equal to the sum of a + b + c.

<u>Step 2</u>
Based upon the policy elimination period and the Total Number of Life-Years of experience, determine the credibility level according to the following table:

Life-Years	30 Days	<u>60 Days</u>	<u>90 Days</u>	120 Days	150 Days	180 Days	360 Days
0-250	8%	7%	5%	4%	4%	3%	3%
251-500	15%	13%	9%	8%	8%	7%	6%
501-750	22%	19%	13%	12%	11%	10%	8%
751-1000	27%	24%	17%	16%	14%	13%	11%
1001-1250	32%	29%	21%	19%	18%	16%	14%
1251-1500	37%	33%	24%	22%	21%	19%	16%
1501-1750	41%	36%	28%	26%	23%	21%	19%
1751-2000	44%	40%	31%	29%	26%	24%	21%
2001-2500	50%	46%	36%	34%	31%	29%	25%
2501-3000	56%	51%	41%	38%	36%	33%	29%
3001-3500	60%	56%	46%	43%	41%	38%	33%
3501-4000	64%	60%	50%	47%	44%	41%	37%
4001-4500	67%	63%	53%	50%	48%	45%	41%
4501-5000	70%	66%	57%	54%	51%	48%	44%
5001-5500	73%	69%	60%	57%	55%	52%	47%
5501-6000	75%	72%	63%	60%	58%	55%	50%
6001-6500	77%	74%	65%	62%	60%	57%	53%
6501-7000	79%	76%	68%	65%	63%	60%	56%
7001-7500	81%	78%	70%	68%	65%	63%	58%
7501-8000	82%	79%	72%	70%	67%	65%	61%
8001-8500	84%	81%	74%	72%	69%	67%	63%
8501-9000	85%	83%	76%	74%	71%	69%	65%
9001-9500	86%	84%	78%	76%	73%	71%	67%
9501-10000	87%	85%	79%	77%	75%	73%	69%
10001-12500	92%	90%	86%	85%	83%	82%	79%
12501-15000	95%	94%	91%	90%	89%	88%	86%
15001-17500	97%	97%	95%	95%	94%	94%	93%
17501-20999	99%	99%	99%	99%	98%	98%	98%
>= 21000	100%	100%	100%	100%	100%	100%	100%

Group Worksite LTD Manual Premium Calculation

### **Experience Rating Formula**

This worksheet is used to evaluate the prior experience on a policy.

		Prior	Prior	Current	
Line #		Year-1	Year	Year	Total
1.	Constant-Rated Premium				
2.	Paid Claims				
3.	Open Claim Reserves				
4.	IBNR Reserves				
5.	Incurred Claims = $\#2 + \#3 + \#4$				
6.	Incurred Loss Ratio = (#5 / #1)				
7.	Tolerable Loss Ratio				
8.	Inforce Rate				
9.	Claims Experience Rate = (#6 / #7) x #8				
10.	Manual Rate				
11.	Credibility Factor				
12.	Experience Factor = #11 x #9				
13.	Manual Factor = $(1 - #11) x #10$				
14.	New Case Rate = #12 + #13				
15.	New Monthly Premium: (Total MCP/100) x #14				

- Line 1. Constant-Rated Premium is calculated as paid premiums multiplied by the ratio of the current inforce rate to actual rate inforce for each prior period.
- Line 2. Paid Claims are shown as reported.
- Line 3. Open Claim Reserves are calculated on our basis (Modified 1987 CGDT), if possible. Otherwise, the prior carrier's reserve basis is used.
- Line 4. IBNR Reserves are calculated on our basis when they are used. Normally, we only use experience that is already outside the IBNR period.
- Line 5: Incurred Claims equal the sum of Paid Claims (Line 2) + Open Claim Reserves (Line 3) + IBNR Reserves (Line 4).
- Line 6: Incurred Loss Ratio = Incurred Claims (Line 5) divided by Constant-Rated Premium (Line 1).
- Line 7. Tolerable Loss Ratio is a fraction equal to 1 Expense % and Profit %.
- Line 8. Inforce Rate is the current monthly rate charged to the policyholder.
- Line 9. Claims Experience Rate is equal to the ratio of the Incurred Loss Ratio (Line 6) divided by the Tolerable Loss Ratio (Line 7) multiplied by the Inforce Rate (Line 8).
- Line 10. The Manual Rate is the monthly premium rate calculated for this group based upon the Group LTD Manual Premium Calculation.
- Line 11. Credibility Factor is based upon the Number of Life-Years of Experience and the Elimination Period of the policy according to the table on Page 23.

Group Worksite LTD Manual Premium Calculation

### **Experience Rating Formula**

Line 12. The Experience Factor is equal to the Credibility Factor (Line 11) multiplied by the Claims Experience Rate (Line 9)

Line 13. The Manual Factor is equal to (1 – Credibility Factor) multiplied by the Manual Rate (Line 10).

Line 14: The Case Rate equals the sum of the Experience Factor (Line 12) and the Manual Factor (Line 13). This represents a melding of the Claim Experience Rate and the Manual Rate based upon the credibility level of the experience. This rate is rounded to two decimal places.

Line 15: New Monthly Premium equals (Monthly Covered Payroll/100) multiplied by the Case Rate (Line 14).

#### **EXAMPLE**:

ABC Company has had 500 employees for 3 consecutive years and has generated the experience shown below. ABC Company has a total of 1500 life-years of experience and has a policy with a 90 day elimination period. The current inforce rate is 1.00, tolerable is 0.750 and the manual rate is 1.00.

Monthly Covered Payroll is \$833,333 and the Credibility factor = 24% (from Page 33)

		Prior	Prior	Current	
Line #		Year-1	Year	Year	Total
1.	Constant-Rated Premium	100000	100000	100000	300000
2.	Paid Claims	30000	20000	10000	60000
3.	Open Claim Reserves	70000	50000	60000	180000
4.	IBNR Reserves	0	0	0	0
5.	Incurred Claims = $\#2 + \#3 + \#4$	100000	70000	70000	240000
6.	Incurred Loss Ratio = (#5 / #1)	100%	70%	70%	80.0%
7.	Tolerable Loss Ratio				75.0%
8.	Inforce Rate				1.00
9.	Claims Experience Rate = (#6 / #7) x #8				1.067
10.	Manual Rate				1.00
11.	Credibility Factor				24%
12.	Experience Factor = #11 x #9				0.256
13.	Manual Factor = $(1 - #11) x #10$				0.760
14.	New Case Rate = $#12 + #13$			·	1.02
15.	New Monthly Premium: (833,333/100) x #14				\$8,500

These results show that experience has run at 106.7% of expected based on the ratio of Line 6 (0.80) to Line 7 (0.75). Since this case is only 24% credible and the manual rate is 1.00, the inforce rate of 1.00 is increased by 2% to 1.02.

### American United Life Insurance Company Indianapolis, Indiana

# Worksite Voluntary Group Worksite Short Term Disability (STD) Rate Calculation March, 2015

- 1. From Table 1, subtract the morbidity factor corresponding to the duration of the sickness elimination period (E.P.) from the morbidity factor corresponding to the duration of the sickness E.P. plus the benefit period.
- 2. Multiply the result of step 1. by the appropriate factor from Table 2 to get the unadjusted male rate.
- 3. Calculate the unadjusted female rate by multiplying the result of step 2. by the appropriate factor from Table 3.
- 4. Add the Injury E.P. Adjustment Rate from Table 4 to steps 2. and 3. to get the Male and Female Basic Rates.
- 5. Determine the Basic Maternity Rate from Table 5.
- 6. Determine the benefit volume (per \$10 of weekly benefit) by sex and five-year age bands.
- 7. For males, multiply the male factors from Table 6 by the male benefit volume for each corresponding age band, and sum these products. Repeat this process for females (non-maternity) and for the maternity factors, using female benefit volume by age band.
- 8. Multiply the male and female non-maternity factors from step 7. by the Male and Female Basic Rates from step 4. Sum these two values and multiply the result by the Industry Factor from Table 7.
- 9. Multiply the female maternity factor from step 7. by the Basic Maternity Rate from step 5. Add this result to the result of step 8.
- 10. Multiply the result of step 9. by the appropriate factors from Tables 8-25 to obtain the Monthly Claim Cost for the group.
- 11. If benefits vary by class within the group, perform steps 1-10 for each class and sum the results of step 10. to obtain the Monthly Claim Cost for the group.
- 12. Calculate the Annual Claim Cost by multiplying the Monthly Claim Cost by 12.
- 13. Calculate the Tabular Rate by dividing the Monthly Claim Cost by the weekly benefit volume (in \$10 units).
- 14. Build in fixed expenses, claim expenses, percentage expenses, premium tax/licenses/fees, commission (for base and overrides), and profit margin to the Tabular Rate to produce the Manual Rate.
- 15. Calculate the Expected Loss Ratio by dividing the Tabular Rate by the Manual Rate.
- 16. For age banded manual rates, apply the loss ratio from step 15 to the age banded tab rates, developed from the gender mix of the group. For composite rates, apply the factor from table 26 to the tab and manual rates from step 15. Also, rates may be converted to be expressed as either a function of salary, covered salary, or benefit amount.

Table 1 Basic Morbidity Table

Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>	Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>
0	0	0.000	7	49	0.257
	1	0.013	<del></del>	50	0.259
	2	0.027		51	0.260
	3	0.040		52	0.262
	4	0.052		53	0.264
	5	0.065		54	0.266
	6	0.076		55	0.267
1	7	0.087	8	56	0.269
	8	0.098		57	0.270
	9	0.107		58	0.272
	10	0.115		59	0.273
	11	0.123		60	0.274
	12	0.130		61	0.275
	13	0.135		62	0.277
2	14	0.142	9	63	0.278
	15	0.148		64	0.279
	16	0.153		65	0.281
	17	0.157		66	0.282
	18	0.162		67	0.284
	19	0.167		68	0.285
	20	0.172		69	0.287
3	21	0.176	10	70	0.288
	22	0.180		71	0.289
	23	0.185		72	0.291
	24	0.189		73	0.292
	25	0.193		74	0.294
	26	0.196		75	0.295
	27	0.200		76	0.297
4	28	0.203	<u>11</u>	77	0.298
	29	0.206		78	0.299
	30	0.210		79	0.300
	31	0.213		80	0.301
	32	0.216		81	0.303
	33	0.219		82	0.304
	34	0.222		83	0.305
5	35	0.225	12	84	0.306
	36	0.228		85	0.307
	37	0.230		86	0.308
	38	0.233		87	0.309
	39	0.235		88	0.311
	40	0.238		89	0.312
	41	0.240		90	0.313
6	42	0.243	13	91	0.314
	43	0.245		92	0.315
	44	0.247		93	0.316
	45	0.249		94	0.317
	46	0.251		95	0.319
	47	0.253		96	0.320
	48	0.255		97	0.321

Table 1
Basic Morbidity Table (Continued)

Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>	Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>
<u>1</u> 4	98	0.322	21	147	0.366
	99	0.323		148	0.367
	100	0.324		149	0.367
	101	0.325		150	0.368
	102	0.325		151	0.369
	103	0.326		152	0.370
	104	0.327		153	0.370
15	105	0.328	<u>22</u>	154	0.371
	106	0.329		155	0.372
	107	0.330		156	0.372
	108	0.331		157	0.373
	109	0.332		158	0.374
	110	0.333		159	0.375
	111	0.334		160	0.375
<u>16</u>	112	0.335	23	161	0.376
	113	0.336		162	0.377
	114	0.337		163	0.377
	115	0.338		164	0.378
	116	0.340		165	0.379
	117	0.341		166	0.380
	117	0.342		167	0.380
17	119	0.342	24	168	0.381
17	120	0.344	<u>2</u> +	169	0.381
	121	0.345		170	0.382
	121	0.345		170	0.382
	123	0.346		171	0.383
	123	0.347		172	0.384
	124	0.347		173	0.384
10			25		
18	126	0.349	<u>25</u>	175	0.385
	127	0.350		176	0.386
	128	0.351		177	0.386
	129	0.352		178	0.387
	130	0.352		179	0.388
	131	0.353		180	0.389
10	132	0.354	26	181	0.389
<u>19</u>	133	0.355	26	182	0.390
	134	0.356		183	0.391
	135	0.357		184	0.391
	136	0.358		185	0.392
	137	0.358		186	0.392
	138	0.359		187	0.393
• 0	139	0.360		188	0.393
20	140	0.361	27	189	0.394
	141	0.362		190	0.395
	142	0.362		191	0.395
	143	0.363		192	0.396
	144	0.364		193	0.397
	145	0.365		194	0.398
	146	0.365		195	0.398

Table 1
Basic Morbidity Table (Continued)

Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>	Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>
28	196	0.399	35	245	0.423
	197	0.400		246	0.424
	198	0.400		247	0.424
	199	0.401		248	0.425
	200	0.401		249	0.425
	201	0.402		250	0.426
	202	0.402		251	0.426
29	203	0.403	36	252	0.427
	204	0.403		253	0.428
	205	0.404		254	0.428
	206	0.404		255	0.429
	207	0.405		256	0.429
	208	0.405		257	0.430
	209	0.406		258	0.430
30	210	0.406	37	259	0.431
	211	0.407		260	0.431
	212	0.407		261	0.432
	213	0.408		262	0.432
	214	0.408		263	0.433
	215	0.409		264	0.433
	216	0.409		265	0.434
31	217	0.410	38	266	0.434
	218	0.411		267	0.434
	219	0.411		268	0.435
	220	0.412		269	0.435
	221	0.412		270	0.436
	222	0.413		271	0.436
	223	0.413		272	0.437
32	224	0.414	39	273	0.437
	225	0.414		274	0.437
	226	0.415		275	0.438
	227	0.415		276	0.438
	228	0.416		277	0.439
	229	0.416		278	0.439
	230	0.417		279	0.440
33	231	0.417	<u>40</u>	280	0.440
	232	0.418		281	0.440
	233	0.418		282	0.441
	234	0.419		283	0.441
	235	0.419		284	0.441
	236	0.420		285	0.441
	237	0.420		286	0.442
34	238	0.421	41	287	0.442
<u> </u>	239	0.421	-14	288	0.442
	240	0.422		289	0.443
	241	0.422		290	0.443
	242	0.422		291	0.444
	243	0.422		292	0.444
	244	0.423		293	0.445
	ムササ	0.743		473	U. <del>TT</del> J

Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>	Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>
42	294	0.445	<u>49</u>	343	0.462
	295	0.445		344	0.463
	296	0.446		345	0.463
	297	0.446		346	0.464
	298	0.447		347	0.464
	299	0.447		348	0.465
	300	0.448		349	0.465
43	301	0.448	50	350	0.466
	302	0.448		351	0.466
	303	0.449		352	0.466
	304	0.449		353	0.466
	305	0.449		354	0.467
	306	0.449		355	0.467
	307	0.450		356	0.467
44	308	0.450	51	357	0.467
	309	0.450		358	0.467
	310	0.451		359	0.468
	311	0.451		360	0.468
	312	0.452		361	0.469
	313	0.452		362	0.469
	314	0.453		363	0.470
45	315	0.453	52	364	0.470
	316	0.453		365	0.470
	317	0.454		366	0.471
	318	0.454		367	0.471
	319	0.454		368	0.471
	320	0.454		369	0.471
	321	0.455		370	0.472
46	322	0.455	<u>53</u>	371	0.472
	323	0.455		372	0.472
	324	0.456		373	0.473
	325	0.456		374	0.473
	326	0.457		375	0.473
	327	0.457		376	0.473
	328	0.458		377	0.474
47	329	0.458	54	378	0.474
	330	0.458		379	0.474
	331	0.459		380	0.475
	332	0.459		381	0.475
	333	0.459		382	0.475
	334	0.459		383	0.475
	335	0.460		384	0.476
48	336	0.460	<u>55</u>	385	0.476
<del></del>	337	0.460	<del></del>	386	0.476
	338	0.461		387	0.477
	339	0.461		388	0.477
	340	0.461		389	0.478
	341	0.461		390	0.478
	342	0.462		391	0.479
	J .=	JJ <u>-</u>		5,1	0.172

Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>	Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>
56	392	0.479	<u>63</u>	441	0.494
	393	0.479		442	0.494
	394	0.480		443	0.494
	395	0.480		444	0.494
	396	0.480		445	0.495
	397	0.480		446	0.495
	398	0.481		447	0.495
57	399	0.481	64	448	0.495
	400	0.481		449	0.496
	401	0.482		450	0.496
	402	0.482		451	0.497
	403	0.482		452	0.497
	404	0.482		453	0.498
	405	0.483		454	0.498
58	406	0.483	<u>65</u>	455	0.499
	407	0.483	<u> </u>	456	0.499
	408	0.484		457	0.499
	409	0.484		458	0.499
	410	0.484		459	0.499
	411	0.484		460	0.499
	412	0.485		461	0.499
59	413	0.485	66	462	0.499
<u>57</u>	414	0.485	00	463	0.499
	415	0.486		464	0.500
	416	0.486		465	0.500
	417	0.486		466	0.500
	418	0.486		467	0.500
	419	0.487		468	0.501
<u>60</u>	420	0.487	67	469	0.501
00	421	0.487	07	470	0.501
	422	0.488		471	0.502
	423	0.488		472	0.502
	424	0.488		473	0.502
	425	0.488		474	0.502
	426	0.489		475	0.502
61	427	0.489	<u>68</u>	476	0.503
01	428	0.489	00	477	0.503
	429	0.489		477	0.503
	430			478 479	0.503
	430	0.490			
		0.490		480	0.504
	432	0.490		481	0.504
62	433	0.491	60	482 483	0.504
62	434	0.491	<u>69</u>		0.504
	435	0.491		484	0.504
	436	0.492		485	0.505
	437	0.492		486	0.505
	438	0.493		487	0.506
	439	0.493		488	0.506
	440	0.494		489	0.507

Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>	Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>
70	490	0.507	77	539	0.524
	491	0.507		540	0.524
	492	0.508		541	0.525
	493	0.508		542	0.525
	494	0.508		543	0.525
	495	0.508		544	0.525
	496	0.509		545	0.526
71	497	0.509	<u>78</u>	546	0.526
	498	0.509		547	0.526
	499	0.510		548	0.527
	500	0.510		549	0.527
	501	0.511		550	0.528
	502	0.511		551	0.528
	503	0.512		552	0.529
72	504	0.512	<u>79</u>	553	0.529
	505	0.512		554	0.529
	506	0.513		555	0.530
	507	0.513		556	0.530
	508	0.513		557	0.530
	509	0.513		558	0.530
	510	0.514		559	0.531
73	511	0.514	80	560	0.531
	512	0.514	·	561	0.531
	513	0.515		562	0.532
	514	0.515		563	0.532
	515	0.516		564	0.533
	516	0.516		565	0.533
	517	0.517		566	0.534
74	518	0.517	81	567	0.534
	519	0.517		568	0.534
	520	0.518		569	0.535
	521	0.518		570	0.535
	522	0.518		571	0.535
	523	0.518		572	0.535
	524	0.519		573	0.536
75	525	0.519	82	574	0.536
	526	0.519		575	0.536
	527	0.520		576	0.537
	528	0.520		577	0.537
	529	0.521		578	0.538
	530	0.521		579	0.538
	531	0.522		580	0.539
76	532	0.522	<u>8</u> 3	581	0.539
	533	0.522		582	0.539
	534	0.523		583	0.540
	535	0.523		584	0.540
	536	0.523		585	0.540
	537	0.523		586	0.540
	538	0.524		587	0.541
					- ·

Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>	Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>
84	588	0.541	91	637	0.558
	589	0.541		638	0.558
	590	0.542		639	0.559
	591	0.542		640	0.559
	592	0.543		641	0.560
	593	0.543		642	0.560
	594	0.544		643	0.561
<u>85</u>	595	0.544	92	644	0.561
	596	0.544		645	0.561
	597	0.545		646	0.562
	598	0.545		647	0.562
	599	0.545		648	0.562
	600	0.545		649	0.562
	601	0.546		650	0.563
86	602	0.546	93	651	0.563
	603	0.546		652	0.563
	604	0.547		653	0.564
	605	0.547		654	0.564
	606	0.548		655	0.565
	607	0.548		656	0.565
	608	0.549		657	0.566
<u>87</u>	609	0.549	94	658	0.566
	610	0.549		659	0.566
	611	0.550		660	0.566
	612	0.550		661	0.566
	613	0.550		662	0.567
	614	0.550		663	0.567
	615	0.551		664	0.567
88	616	0.551	95	665	0.567
	617	0.551		666	0.567
	618	0.552		667	0.568
	619	0.552		668	0.568
	620	0.553		669	0.568
	621	0.553		670	0.568
	622	0.554		671	0.569
89	623	0.554	96	672	0.569
	624	0.554		673	0.569
	625	0.555		674	0.570
	626	0.555		675	0.570
	627	0.555		676	0.570
	628	0.555		677	0.570
	629	0.556		678	0.571
90	630	0.556	97	679	0.571
	631	0.556		680	0.571
	632	0.557		681	0.571
	633	0.557		682	0.571
	634	0.557		683	0.572
	635	0.557		684	0.572
	636	0.558		685	0.572

Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>	Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>
98	686	0.572	<u>105</u>	735	0.584
	687	0.572		736	0.584
	688	0.573		737	0.584
	689	0.573		738	0.584
	690	0.573		739	0.585
	691	0.573		740	0.585
	692	0.574		741	0.585
99	693	0.574	106	742	0.585
	694	0.574		743	0.585
	695	0.575		744	0.586
	696	0.575		745	0.586
	697	0.575		746	0.586
	698	0.575		747	0.586
	699	0.576		748	0.587
100	700	0.57 <u>6</u>	<u>107</u>	749	0.587
100	701	0.576	107	750	0.587
	702	0.576		750 751	0.588
	702	0.576		751 752	0.588
	704	0.577		752 753	0.588
	704	0.577		753 754	0.588
	705 706	0.577		755	0.589
101	706 707		100		
101		0.577	<u>108</u>	756	0.589
	708	0.577		757	0.589
	709	0.578		758	0.589
	710	0.578		759	0.589
	711	0.578		760	0.590
	712	0.578		761	0.590
	713	0.579		762	0.590
102	714	0.579	109	763	0.590
	715	0.579		764	0.590
	716	0.580		765	0.591
	717	0.580		766	0.591
	718	0.580		767	0.591
	719	0.580		768	0.591
	720	0.581		769	0.592
103	721	0.581	<u>110</u>	770	0.592
	722	0.581		771	0.592
	723	0.581		772	0.593
	724	0.581		773	0.593
	725	0.582		774	0.593
	726	0.582		775	0.593
	727	0.582		776	0.594
104	728	0.582	<u>111</u>	777	0.594
	729	0.582		778	0.594
	730	0.583		779	0.594
	731	0.583		780	0.594
	732	0.583		781	0.595
	733	0.583		782	0.595
	734	0.584		783	0.595

Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>	Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>
112	784	0.595	119	833	0.607
112	785	0.595	117	834	0.607
	786	0.596		835	0.607
	787	0.596		836	0.607
	788	0.596		837	0.608
	789	0.596		838	0.608
	790	0.597		839	0.608
113	791	0.597	120	840	0.608
113	792	0.597	120	841	0.608
	793	0.598		842	0.609
	794	0.598		843	0.609
	795	0.598		844	0.609
	796	0.598		845	0.609
	797	0.599		846	0.610
<u>114</u>	898	0.599	<u>121</u>	847	0.610
117	899	0.599	121	848	0.610
	800	0.599		849	0.611
	801	0.599		850	0.611
	802	0.600		851	0.611
	803	0.600		852	0.611
	804	0.600		853	0.612
115	805	0.600	122	854	0.612
113	806	0.600	122	855	0.612
	807	0.601		856	0.612
	808	0.601		857	0.612
	809	0.601		858	0.613
	810	0.601		859	0.613
	811	0.602		860	0.613
<u>116</u>	812	0.602	123	861	0.613
110	813	0.602	123	862	0.613
	814	0.603		863	0.614
	815	0.603		864	0.614
	816	0.603		865	0.614
	817	0.603		866	0.614
	818	0.604		867	0.615
<u>117</u>	819	0.604	<u>124</u>	868	0.615
117	820	0.604	121	869	0.615
	821	0.604		870	0.616
	822	0.604		871	0.616
	823	0.605		872	0.616
	824	0.605		873	0.616
	825	0.605		874	0.617
118	826	0.60 <u>5</u>	125	875	0.617
110	827	0.605	123	876	0.617
	828	0.606		877	0.617
	829	0.606		878	0.617
	830	0.606		879	0.618
	831	0.606		880	0.618
	832	0.607		881	0.618
	032	0.007		001	0.010

Table 1
Basic Morbidity Table (Continued)

Duration (weeks)	Duration (days)	Morbidity <u>Factor</u>
126	882	0.618
	883	0.618
	884	0.619
	885	0.619
	886	0.619
	887	0.619
	888	0.620
127	889	0.620
	890	0.620
	891	0.621
	892	0.621
	793	0.621
	894	0.621
	895	0.622
128	896	0.622
	897	0.622
	898	0.622
	899	0.622
	900	0.623
	901	0.623
	902	0.623
129	903	0.623
	904	0.623
	905	0.624
	906	0.624
	907	0.624
	908	0.624
	909	0.625
130	910	0.625

Table 2 Sickness Elimination Period Factor

Sickness Elimination Period	<u>Factor</u>
0 - 7 days	1.00
8 - 180 days	1.05

# Table 3 Female Rate Factor

Benefit Period (Weeks)	<u>Factor</u>
5 - 25 weeks	1.30
26 - 38 weeks	1.20
39 - 51 weeks	1.10
52 - 104 weeks	1.05

Table 4
Injury Elimination Period Adjustment Rate

Sickness EP minus Injury EP	Additio	onal rate for benefit
<u>Days</u>	<u>Male</u>	<u>Female</u>
0	0.00	0.00
1-7	0.03	0.02
8-14	0.04	0.03
15-30	0.06	0.04
31-60	0.08	0.05
61-90	0.12	0.08
91-180	0.16	0.10

Table 5
Basic Maternity Rate

Sickness Elimination Period (days)

	Diemiess Emi	ination i c	iioa (aajs)
Benefit Period	<u>0 - 29</u>	30 - 59	<u>60 - 180</u>
5 - 25 weeks	0.17	0.09	0.02
26 - 38 weeks	0.20	0.10	0.03
39 - 51 weeks	0.21	0.10	0.03
52 - 104 weeks	0.22	0.11	0.04

Table 6 Age and Sex Factors

	With E	Employer Contrib	ution and	With Em	ployee Contribu	tion and
	>= 75% min	imum participati	on requirement	< 75% minim	um participation	requirement
Age	Male Age	Male Age	Maternity	Male Age	Male Age	Maternity
Band	Factor	Factor	Factor	Factor	Factor	Factor
<25	0.57	0.26	2.15	0.51	0.23	2.37
25-29	0.50	0.28	2.44	0.48	0.27	2.68
30-34	0.53	0.58	1.81	0.53	0.58	1.99
35-39	0.55	0.78	0.75	0.58	0.82	0.83
40-44	0.72	0.93	0.08	0.79	1.02	0.09
45-49	0.88	0.97	-	1.01	1.12	-
50-54	1.15	1.10	-	1.32	1.27	-
55-59	1.60	1.39	-	1.76	1.53	-
60-64	1.84	1.61	-	2.02	1.77	-
65-69	1.98	1.77	-	2.18	1.95	-
70+	2.14	1.87	-	2.35	2.06	-

### Table 7 Industry Factors (available upon request)

# Table 8 Contributory Factor

Type of Plan	<b>Factor</b>
Non-Contributory	0.93
Contributory	1.04
100% Contributory	1.15

# Table 9 Size of Case Factor

No. of Lives	Factor
Less than 25	0.95
25 - 29	0.97
30 - 34	0.97
35 - 39	0.97
40 - 49	0.97
50 - 64	0.99
65 - 79	0.99
80 - 99	0.99
100 - 149	1.02
150 - 249	1.02
250 and greater	1.07

Table 10 Pre-existing Conditions

	With Prudent	Without Prudent
Pre-ex	Person Language	Person Language
30/5 day	0.99	0.99
5 day	1.00	1.00
30/30	0.98	0.98
3/6	0.97	0.97
3/3/12	0.96	0.96
3/6/12	0.95	0.95
3/12/12	0.94	0.94
3/12	0.94	0.94
6/6/12	0.93	0.93
6/12/12	0.93	0.93
6/12	0.93	0.93
6/6/24	0.92	0.92
6/12/24	0.92	0.92
6/24	0.92	0.92
12/6/12	0.91	0.91
12/12/12	0.91	0.91
12/12	0.91	0.91
12/6/24	0.88	0.88
12/12/24	0.87	0.87
12/24	0.86	0.86
None	1.00	1.00

Table 11 Integration

	Non-Occ	<u>24-hour</u>
Non-Occ	<u>Coverage</u>	Coverage
Coverage with	without	<u>without</u>
<u>Integration</u>	<u>Integration</u>	<u>Integration</u>
0.98	1.00	1.03
0.97	1.00	1.03
0.95	1.00	1.03
0.92	1.00	1.03
	Coverage with Integration 0.98 0.97 0.95	Non-Occ         Coverage           Coverage with         without           Integration         Integration           0.98         1.00           0.97         1.00           0.95         1.00

### Table 12 Non-Occ/24-hour

Type of Coverage	<u>Factor</u>
Non-Occ	1.00
24-hour	1.10

### Table 13 Workers' Comp

Workers' Comp Inforce	Type of Coverage	<b>Factor</b>
Yes	All	1.00
No	Non-Occ	1.00
No	24-hour	1.07

# Table 14 Partial Disability

Benefit	<u>Factor</u>
No Partial	1.00
Partial Only 50% or Proportionate Loss	1.03
Partial Only 70%	1.04
Partial with Residual 50% or Proportionate Loss	1.07
Partial with Residual 70%	1.08

Table 15 Benefit Percentage

Benefit Percent	<u>Factor</u>
<=60%	1.00
61% 66.67%	1.02
>66.67%	1.05

Table 16
1st Day Hospital Sickness Benefit

Elimination Period (Days)		1st Day Hospital Sickness Benefit With Outpatient		Without C	Outpatient
Accident	Sickness	Male	Female	Male	Female
1	1	0.000	0.000	0.000	0.000
1	4	0.030	0.070	0.015	0.045
4	4	0.030	0.070	0.015	0.045
1	8	0.040	0.100	0.020	0.060
4	8	0.040	0.100	0.020	0.060
8	8	0.040	0.100	0.020	0.060
1	15	0.060	0.160	0.030	0.090
4	15	0.060	0.160	0.030	0.090
8	15	0.060	0.160	0.030	0.090
15	15	0.060	0.160	0.030	0.090
1	30	0.090	0.230	0.040	0.120
4	30	0.090	0.230	0.040	0.120
8	30	0.090	0.230	0.040	0.120
15	30	0.090	0.230	0.040	0.120
30	30	0.090	0.230	0.040	0.120

## Table 17 Reinstatement Provision

Reinstatement	<b>Factor</b>
<u>Period</u>	
30 Days	1.00
60 Days	1.00
90 Days	1.00
120 Days	1.00
180 Days	1.00
360 Days	1.00
365 Days	1.00

### Table 18 Benefit Period Adjustment

<b>Benefit Duration</b>	<b>Factor</b>
<=13 Weeks	0.92
>13 Weeks	1.00

### Table 19 FICA Tax Benefit

FICA Tax Benefit	Benefit Factor	Expense Factor
ER FICA paid and billed back	0.0000	0.02
ER FICA paid and not billed back	tax rate	0.01
None or minimal FICA related services	0.0000	0.00

Note: The tax rate will be changed whenever the tax percentage changes by law. It is currently 7.65%

Table 20 Rate Guarantee

Guarantee Period	<b>Factor</b>
Less than 3 Years	1.00
3 Years or greater	1.05

### Table 21 Benefit Max

Weekly Benefit	Factor
Max	
<=1500	0.98
1501-2000	1.00
2001-2500	1.01
2501-3000	1.03
3001+	1.05

### Table 22 Family Care

<b>Option</b>	Factor
12 months	1.02
24 months	1.03
None	1.00

### Table 23 Return to Work Limit

Factor
1.00
1.01
1.02
1.03
1.04

### Table 24 Benefit Type

<b>Option</b>	<u>Factor</u>
% of Salary	1.00
Flat	1.00
Incremental	1.00

### Table 25 Regular Occ Period

<b>Option</b>	Factor
Regular Job	1.02
Regular Occ	1.00

# Table 26 Composite Rate Load for a Low Minimum Participation Requirement

Min. Required	<b>Factor</b>	
<b>Participation</b>		
0% - 49%	1.15	
50% - 100%	1.00	

# Table 27 Fixed Expenses

Available upon request.

# Table 28 Percentage Expenses and Profit Margin

Available upon request.

### Table 29 Premium Tax, Licenses, and Fees

Available upon request.

The state premium tax will be changed in accordance with changes states make to their premium tax.

### Table 30 Commissions

### a) **Scheduled Commissions**

Schedule C Level		Schedule G Level		
Annual Premium	<u>Commissions</u>	Annual Premium	Commissions	
First \$10,000	10.00 %	First \$5,000	10.00 %	
Next \$10,000	8.00 %	Next \$10,000	8.00 %	
Next \$10,000	4.00 %	Next \$10,000	4.00 %	
Next \$10,000	2.75 %	Next \$10,000	2.75 %	
Next \$30,000	2.50 %	Next \$30,000	2.50 %	
Next \$30,000	2.00 %	Next \$35,000	2.00 %	
Over \$100,000	0.75 %	Next \$100,000	0.75 %	

### b) Flat Commissions

Optional flat commissions are input by the user.

### c) Overrides

2% of premium

### **Group STD Credibility Formula**

### Step 1

Calculate the Total Number of Life-Years of exposure on a policy according to the following worksheet. Up to three years of experience may be used in this calculation.

<b>Experience Year</b>	<b>Number of Lives</b>	<b>Portion of Year Exposed</b>	<b>Number of Life-Years</b>
Year 1	L1	P1	$L1 \times P1 = a$
Year 2	L2	P2	$L2 \times P2 = b$
Year 3	L3	Р3	$L3 \times P3 = c$

The Total Number Life-Years is set equal to the sum of a + b + c.

### Step 2

Based upon the Elimination Period of the policy and the Total Number of Life-Years of experience, determine the credibility level according to the following formula:

$$Credibility = \frac{Total\ Number\ of\ Life-Years}{CD\ Factor}$$

### Where

CD Factor	=	550	for elimination periods of 10 days or less
	=	700	for elimination periods from 11 to 29 days
	=	1100	for elimination periods from 30 to 59 days
	=	2000	for elimination periods greater than 60 days

### **Experience Rating Formula**

This worksheet is used to evaluate the prior experience on a policy.

Line		Prior Year-1	Prior Year	Current Year	Total
1.	Constant-Rated Premium				
2.	Paid Claims				
3.	Open Claim Reserves				
4.	IBNR Reserves				
5.	Incurred Claims = $\#2 + \#3 + \#4$				
6.	Incurred Loss Ratio = (#5 / #1)				
7.	Tolerable Loss Ratio				
8.	In-force Rate				
9.	Claims Experience Rate = (#6 / #7) x #8				
10.	Manual Rate				
11.	Credibility Factor				
12.	Experience Factor = #11 x #9				
13.	Manual Factor = (1 - #11) x #10				
14.	New Case Rate = #12 + #13				
15.	New Monthly Premium: (Total MCP/100) x #14				

- Line 1. Constant-Rated Premium is calculated as paid premiums multiplied by the ratio of the current inforce rate to actual rate in-force for each prior period.
- Line 2. Paid Claims are shown as reported.
- Line 3. Open Claim Reserves are calculated on our basis if possible. Otherwise, the prior carrier's reserve basis is used.
- Line 4. IBNR Reserves are calculated on our basis when they are used. Normally, we only use experience that is already outside the IBNR period.
- Line 5: Incurred Claims equal the sum of Paid Claims (Line 2) + Open Claim Reserves (Line 3) + IBNR Reserves (Line 4).
- Line 6: Incurred Loss Ratio = Incurred Claims (Line 5) divided by Constant-Rated Premium
- Line 7. Tolerable Loss Ratio is a fraction equal to 1 Expense % and Profit %.
- Line 8. In-force Rate is the current monthly rate charged to the policyholder.
- Line 9. Claims Experience Rate is equal to the ratio of the Incurred Loss Ratio (Line 6) divided by the Tolerable Loss Ratio (Line 7) multiplied by the In-force Rate (Line 8).
- Line 10. The Manual Rate is the monthly premium rate calculated for this group based upon the Group STD Manual Premium Calculation.
- Line 11. Credibility Factor is based upon the Number of Life-Years of Experience and the Elimination Period of the policy as specified in the prior section.

### **Experience Rating Formula**

Line 12. The Experience Factor is equal to the Credibility Factor (Line 11) multiplied by the Claims Experience Rate (Line 9)

Line 13. The Manual Factor is equal to (1 – Credibility Factor) multiplied by the Manual Rate (Line 10).

Line 14: The Case Rate equals the sum of the Experience Factor (Line 12) and the Manual Factor (Line 13). This represents a melding of the Claim Experience Rate and the Manual Rate based upon the credibility level of the experience. This rate is rounded to two decimal places.

Line 15: New Monthly Premium equals (Monthly Covered Payroll/100) multiplied by the Case Rate (Line 14).

### **EXAMPLE:**

ABC Company has had 56 employees for 3 consecutive years and has generated the experience shown below.

ABC Company has a total of 168 life-years of experience and has a policy with a 14 day elimination period.

The current in-force rate is 1.00, tolerable is 0.750 and the manual rate is 1.00.

Monthly Covered Payroll is \$83,333 and the Credibility factor = 24%

		Prior	Prior	Current	
Line		Year-1	Year	Year	Total
#					
1.	Constant-Rated Premium	10000	10000	10000	30000
2.	Paid Claims	7000	5000	6000	18000
3.	Open Claim Reserves	3000	2000	1000	6000
4.	IBNR Reserves	0	0	0	0
5.	Incurred Claims = $\#2 + \#3 + \#4$	10000	7000	7000	24000
6.	Incurred Loss Ratio = (#5 / #1)	100%	70%	70%	80.0%
7.	Tolerable Loss Ratio				75.0%
8.	Inforce Rate				1.00
9.	Claims Experience Rate = $(\#6 / \#7) x \#8$				1.067
10.	Manual Rate				1.00
11.	Credibility Factor				24%
12.	Experience Factor = #11 x #9				0.256
13.	Manual Factor = (1 - #11) x #10				0.760
14.	New Case Rate = #12 + #13				1.02
15.	New Monthly Premium: (83,333/100) x #14				\$850

These results show that experience has run at 106.7% of expected based on the ratio of Line 6 (0.80) to Line 7 (0.75). Since this case is only 24% credible and the manual rate is 1.00, the in-force rate of 1.00 is increased by 2% to 1.02.

SERFF Tracking #:	AULD-130228195	State Tracking #:	Company Tracking #:	3802 RATES

State: District of Columbia Filing Company: American United Life Insurance Company

TOI/Sub-TOI: H11G Group Health - Disability Income/H11G.004 Other

Product Name: Worksite Disability

Project Name/Number: /

### **Supporting Document Schedules**

Satisfied - Item:	Cover Letter All Filings
Comments:	
Attachment(s):	DC Worksite rate filing letter.pdf
Item Status:	
Status Date:	
Bypassed - Item:	Certificate of Authority to File
Bypass Reason:	N/A
Attachment(s):	
Item Status:	
Status Date:	
Satisfied - Item:	Actuarial Memorandum
Comments:	A Colored Hornor and ann
Attachment(s):	OneAmerica Worksite Dis Actuarial Memorandum 8-28-2015_DC (2).pdf
Item Status:	
Status Date:	
Satisfied - Item:	Actuarial Justification
Comments:	
Attachment(s):	Standard Actuarial Cert-2.pdf
Item Status:	
Status Date:	
Bypassed - Item:	District of Columbia and Countrywide Loss Ratio Analysis (P&C)
Bypass Reason:	N/A
Attachment(s):	
Item Status:	
Status Date:	
Bypassed - Item:	District of Columbia and Countrywide Experience for the Last 5 Years (P&C)
Bypass Reason:	N/A
Attachment(s):	
Item Status:	
Status Date:	

SERFF Tracking #:	AULD-130228195	State Tracking #:		Company Tracking #:	3802 RATES	
State: TOI/Sub-TOI:	District of Columbia H11G Group Health - Disability Income/H11G.004 Othe		Filing Company:	American United Lif	fe Insurance Company	
Product Name: Project Name/Number:	Worksite Disabili /					
Bypassed - Item:	A	ctuarial Memorandum and Certifica	tions			
Bypass Reason:	N	I/A				
Attachment(s):						
Item Status:						
Status Date:						
Bypassed - Item:	U	Inified Rate Review Template				
Bypass Reason:	N	I/A				
Attachment(s):						
Item Status:						
Status Date:						
Satisfied - Item:	S	IC and Area Factors				
Comments:						
Attachment(s):	C	copy of OneAmerica Worksite Dis_S	SIC and Area Factors.x	dsm		
Item Status:						

**Status Date:** 

SERFF Tracking #: AULD-130228195 State Tracking #: Company Tracking #: 3802 RATES

State: District of Columbia Filing Company: American United Life Insurance Company

TOI/Sub-TOI: H11G Group Health - Disability Income/H11G.004 Other

Product Name: Worksite Disability

Project Name/Number: /

Attachment Copy of OneAmerica Worksite Dis\_SIC and Area Factors.xlsm is not a PDF document and cannot be reproduced here.



Re: American United Life Insurance Company - NAIC #60895; FEIN 35-0145825

Group Worksite Disability Insurance

Rate Filing

Forms G 3802 and GC 3802

Proposed Effective Date Request is November 2, 2015

Dear Department of Insurance,

Attached for review is a copy of our Actuarial Memorandum for our Group Worksite Disability Income Insurance policy and certificate, referenced above. The purpose of this rate filing is to show rate factors for benefit options included in this contract.

The Actuarial Memorandum does not contain any unusual features from normal company and industry standards and is intended for use with the Group Worksite Disability Income Insurance policy and certificates.

The product is marketed to employer/employee groups through our licensed agents and brokers.

The form filing for this product is under SERFF tracking number AULD-130228196 and is being file simultaneously with this rate filing.

Please acknowledge the approval of these rates via SERFF.

If you have any questions, you may call me toll free at 877-285-7660 ext. 1927 or contact me by e-mail at productcompliance.corporatecompliance@oneamerica.com.

Sincerely, Angie Neville

angie Peville

Corporate Compliance Filing Specialist

### American United Life Insurance Companyfi A OneAmerica Financial Partner Indianapolis, IN Group Worksite Disability (G3802 and GC3802) Actuarial Memorandum

### Purpose

This actuarial memorandum has been prepared to support the new form filing for our Group Worksite Disability product. The purpose of this rate filing is to demonstrate these rates are in compliance with regulatory authority. It may not be appropriate for other purposes.

### **Benefit Summary**

This policy form provides both short-term and long-term income replacement benefits for salary loss due to disability from accident or sickness. Benefits are calculated as a percent of salary subject to a maximum benefit amount that is based upon the highest earners in the policyholder group. Flat amounts are also available, subject to a maximum based on the insured's salary. Typically these disability benefits are integrated with other income benefits such as Social Security, Workers Compensation or Statutory Disability benefits. The application of benefit integration helps to reduce costs and ensure total paid benefits from all sources provides a reasonable replacement of lost income.

This policy makes available all of the standard plan options found in the Group STD and LTD marketplace. Some less common benefits are also available including a Special Conditions Limitation and a Supplemental Disability Benefit. Policies are issued to our customers on an optionally renewable basis with premium rates typically guaranteed for the first two years. Coverage is provided to all employees regardless of age provided they meet the eligibility requirements under the group policy.

#### Morbidity

The 1987 CGDT table with adjustments made to this table based upon company or industry experience.

### Persistency

Persistency is not a significant factor with this product since it is rated on a YRT basis.

#### **Interest Rate Assumptions**

The pricing interest rate assumption used is 5.00%. The assumption is below our current asset portfolio rate and reflective of our long-term expectation on interest rates.

### Premium Calculation

Premium rates are calculated for each group policyholder based upon the plan of benefits, demographic composition of the employee group and characteristics of the group policyholder. Attained age rating bands are most commonly used for this product.

### Average Annual Premium

The average annual premium per employee is expected to remain the same as our Voluntary Disability Product already on file. For short-term disability, this is \$346. For long-term disability, this is \$319.

### Marketing Method

This product is marketed, primarily to employer groups, by captive agents and independent brokers working with AUL's group sales representatives.

### Underwriting

Case-level underwriting will be done in general accordance with standard group underwriting practices. A vast majority of certificates are issued on a guaranteed basis. Medical underwriting applies only in instances such as small groups (less than 25 lives), late enrollees, or for coverage amounts in excess of the guarantee issue limit, which varies by group. These practices are common in the group insurance industry and are used to spread risk and control selection. No explicit claim cost decrease is associated with this underwriting.

#### Premium Classes

There are no premium classes for this product.

### American United Life Insurance Companyfi A OneAmerica Financial Partner Indianapolis, IN Group Worksite Disability (G3802 and GC3802) Actuarial Memorandum

### Issue Age Range

It is expected that most insureds will be between ages 19-70.

### Expense Breakdown

This product is priced to produce the following block average expenses, profit margin, and tolerable loss ratio (TLR) as a percent of premium:

Commissions and Overrides	18%
Taxes, Licenses, and Fees	3%
Other Non-Commission Expenses	16%
Profit Margin	<u>3%</u>
Total Expenses and Profit	40%
TI R	60%

### Certification

I certify that to the best of my knowledge and judgment, this rate filing is in compliance with the applicable laws of your state and complies with Actuarial Standard of Practice No. 8. The benefits provided under this product form are deemed to be reasonable in relation to the premiums charged.

The rates as filed are anticipated to produce a loss ratio of not less than 60% as measured using statutory assumptions.

Kathy Davis, FSA, MAAA

Sr. Associate Actuary

American United Life, a OneAmerica Financial Partner

Kathy to Davis

September 1, 2015

### ACTUARIAL CERTIFICATE

### STATE OF DISTRICT OF COLUMBIA

COMPANY: AMERICAN UNITED LIFE INSURANCE COMPANY

RATE SUBMISSION(S): WORKSITE DISABILITY FORM NUMBERS G 3802 & GC 3802

DATE: SEPTEMBER 2, 2015

I hereby certify that to the best of my knowledge and belief the above rate submission(s) conforms to all applicable statutes, rules and regulations of the State of [state] and that the rates are not inadequate, excessive, unfairly discriminatory, or unreasonable in relation to benefits provided.

SIGNATURE OF QUALIFIED ACTUARY

Kathy So Davis

Kathy Jo Davis, Senior Associate Actuary
NAME, TITLE AND/OR BUSINESS AFFILIATION